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contents

CU AMIGA MAGAZINE • JANUARY 1996

Cover Feature

Imagine this! 26

Look what Santa has delivered this Christmas! *Imagine 3.0* is yours to keep, and to get you rendering three dimensional animations and pictures in double-quick time, here's everything you need to know about the program to get started. John Kennedy takes you through the first steps of creating a 3D masterpiece, so even if you've never used a 2D graphics package before, you'll be knocking out virtual Christmas decorations within minutes. Whether you aspire to professional movie special effects, or just want to mess around, this is the ideal place to start! Happy Christmas to one and all.



Year Of The Amiga?

Out with old ... 34

As another year drifts into that murky old place we call 'the past', we take a look back at the highs, the lows, the good times and the bad. We also asked a few prominent characters from the Amiga market to lend us their thoughts on how 1995 shaped up for the Amiga. Not to get too nostalgic, we also take a look forward to see what the year ahead may bring and how we can all help make sure that by this time next year, the Amiga market is just as fat as our feathered friend here.



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- **PD Scene** 89
Plenty of stocking-filling goodies have turned up this month in the public domain
- **PD Utilities** 95
Get your Amiga stocked up for the winter with a bunch of new PD utilities



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- **Micronik Tower 68** 72
Radically expand the power of your A1200 with the impressive Micronik Tower system.
- **World Construction Set** 72
Following our exclusive preview some months ago, World Construction Set finally arrives for review
- **AmiLink** 74
Networking a number of Amigas poses a few problems. Can AmiLink iron them out?
- **Mouse head-to-head** 75
Two new mice go head-to-head.
- **A620 Accelerator** 79
At last you can make your A600 go faster than a shiny new A1200!
- **Personal Suite** 80
The renowned Personal Paint is released on CD-ROM accompanied by a selection of bonus applications.
- **Magic User Interface 3.0** 82
MUI reaches version 3. Find out whether the latest release has addressed the earlier program's faults
- **The Sports Mouse** 83
Just the ticket for Amiga-owning football fans.



Cover Disks



Imagine 3.0

8

Just in case you hadn't already noticed, *Imagine 3.0* is stuck to the front of this magazine, complete, uncut and all yours! Professional 3D rendering for under a fiver - now that's amazing!

AlgoMusic

8

With *AlgoMusic* you need never listen to the same tune twice! Using clever random algorithms, it plays a whole new tune every time. Just click and play!

Zeewolf 2 - Wild Justice

10

We've got an excellent exclusive cover demo in our January issue. Start the new year off with the fabulous sequel to *Zeewolf*. Take to the skies in style in this exciting light emulator.

Games

PREVIEWS

- **Breathless** 43
Power Computing, veterans of Amiga serious software and hardware releases a *Doam* alone. And guess what, it looks good!
- **Gloom Deluxe** 44
Gloom has been given the once over by Black Megs to make it run on all Amigas with 256k RAM. What other major changes are in store?
- **XTreme Racing** 44
A mad, bad racing game by a bunch of Brits known, oddly, as *Sittune*. They were inspired by *Black Megs* and it is due to be published by Guildhall. Will it triumph or become a Christmas turkey?

REVIEWS

- **Zeewolf 2 - Wild Justice** 50
You've got the cover disk, now read the review. *Zeewolf* was good, but not great, so how have the Binary boys gone about making it better?

● Sensi World 95/98 50

Could it be possible? The godfather of foxy games improved upon? We find out if his colour purple has made any difference.

● Super Tennis Champions 52

We all know that the tennis season is over but *Super Tennis* is the perfect way to limber up for next year's Wimbledon test.

● Worms CD32 57

Alien is a game that has just got better and CD32 owners can join in and play their own music, 'wormed up'.

● Gloom CD32 58

As *Gloom Deluxe* pokes its head out of the coffin the *Gloom* finally makes it onto the CD32. Welcome to the *Doam* alone frenzy.

● Alien 8reed 3D CD32 58

Alien is a favourite game arrives on CD32. Will he like it as much as *Worms*?

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● UFO 61

A relatively recent MicroPress title that sees you fighting one-on-one with extra terrestrials. Now at a bargain price.

● F1 61

The classic racing game arrives on a budget label. If you're impatient for fast paced driving action then this could be the one for you. Find out for sure on page 61.



News

● News 16

Many, many things have happened in the world of Amiga this month including the announcement of a new quad speed CD-ROM drive from Amiga Technologies and a *Breed* 3D update from Team 17. Plus, we report from Cologne on the biggest Amiga show since the *Expo* buyout. We bring you all the latest information - who was there, what was new and more...

Players Guides

● Vampyra 63

Has *Vamp* been bitten by the Christmas spirit? No - as usual she's done all the biting herself, tipping like a demon through this month's adventure problems.

● Snip Tips 84

Matt Broughton dots his Ts and crosses his Is as he uses his wit and wisdom and some Hit Squid games to bribe you for your tips.

Competition

● Christmas Compo 126

Forget the National Lottery, here are some things that money just can't buy (well, it can but you've got to have some first). Amongst the weird and wonderful prizes we've rounded up for your Christmas delirium are a pair of Matt Battinson's jeans, a hand grenade, an aircraft flight controller and this A1200 beginners' peek. Oh yes, and a stack of rock. Have WE gone off our rockers? Find out...



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DISKS 123

Imagine 3.0



AlgoMusic

We all like to listen to a few Amiga music modules while we're working (or playing), but what happens when you're bored of all your modules? *AlgoMusic* is the answer! Using its own algorithms, it generates random music that's different each time you run it. You can either run it from the icons on cover disk CU 123a or call it from the CLI. The CLI method allows you to control the tempo and certain aspects of the music, such as whether it uses breakbeats, whether it includes acid-style voices and if it runs forever or stops after a while.

For example, to generate a fast techno track that uses breakbeats, open a CLI window and type:

```
cd CU 123a
algomusic.exe BPM 160 ACID FOREVER ##
```

To find out more about how to control *AlgoMusic*, read the *AmigaGuide* document included on the same disk. Use Show All Files from the Workbench menu, click once on the *AlgoMusic* guide icon and then hold down the Shift key and double click the *AmigaGuide* icon from your Workbench.

& AlgoMusic

Yes it's true: *Imagine 3.0* is yours to keep with this issue of *CU Amiga*. You'll also find *AlgoMusic* entertaining with its amazing random music patterns.

If you've never used a 3D rendering program before, you really don't know what you're missing out on.

If you have, you'll already be frothing at the mouth in the knowledge that you now have the brilliant *Imagine 3.0* at your disposal. 3D rendering is highly addictive and once you've learnt the basics you won't be able to stop.

Never again will you power-down your Amiga after a hard day's work: why should you when you can set it rendering a new animation while you catch forty winks?

A cut above the rest

You may be wondering just what makes *Imagine* so special; just what can it do? For a start it can render incredibly realistic images and animations on Amigas with relatively low system requirements. While most professional 3D systems demand well in excess of 6MB just to get started, *Imagine* will work in as little as 3MB, although serious rendering will eat more RAM.

It has its own 'bones' system for realistically animating objects that are really a series of different parts all joined together. Then there's its particle generator and



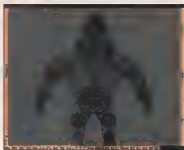
Most 3D graphics systems work around the same basic theories and *Imagine* is not exception. Scenes are created by assembling a number of objects, covering them in colours or textures, lighting them and then 'rendering' them, normally using a technique called ray tracing. Each object is made up from a number of points, each of which is joined to its neighbouring points by 'wires'. Hence the objects are known as wireframe constructions. Many complex calculations are required to accurately display these objects as coloured, solid items, so transparent wireframe displays are used during the construction and editing process to maintain a reasonable speed. The sequence here shows an object in various states of rendered display.



▲ 1 Transparent wireframe



▲ 2 Solid wireframe



▲ 3 Shaded solid wireframe



▲ 4 Phong shaded (Quick render)

animator sections, just the thing for explosions, fountains and God knows what else.

In fact there's so much on offer in *Imagine 3* that we can't possibly describe it all here. Turn to page 28 for your guide to getting started with this amazing program. We'll be following up this beginners guide with a series of tutorials to help you get those most out of *Imagine 3*.



Upgrade To Imagine 4!

We can tell you're impressed with *Imagine 3*. So why rest on your laurels? *Imagine 4* is the latest produce from the *Imagine* stable, and offers even more powerful features than version 3! At the moment you can only order the upgrade direct from its developers Impulse Inc in the USA but don't worry, it could hardly be simpler. The price of *Imagine 4* is \$110 (that's USA dollars). You can pay Visa or Mastercard, or send a US Money Order for US\$110 direct to Impulse Inc, 8416 Xerxes Ave.N., Brooklyn Park MN 55444. If you have any questions you can call them on 001 612 425 0557. Call after 5PM GMT to allow for the time difference.

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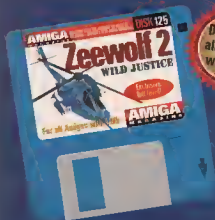
Telephone:

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Expiry Date:

DISK 125

Zeewolf 2



Demo for
all Amigas
with 1Mb

Key Features

- Blades
- Planes
- Tanks
- Guns

Hot Exclusive - The Tank

Exclusive to this CU Amiga Magazine demo is the remote control tank. To use it you must first locate the RC Vehicle. This is a small blue tank with aerials and a crane. Load beside this and when it connects up to your Zeewolf you will be transported by the magic of remote control to a tank with a big gun. In fact this tank has two guns: one weak, woody but nevertheless useful machine gun and one massive armour piercing nannon. The cannon will knock out any ground based unit with one shot, but cannot fire into the air. The machine gun is of little use against ground targets but will shoot at aircraft, so keep your ammo for this.

Controlling the tank is simple: Left, Right, Forward, and Back. Once again, the space bar toggles between weapons and L key will terminate the remote link. The tank travels faster on roads than on lumpy terrain and if it is destroyed you just return to your undamaged Zeewolf.

WILD JUSTICE

Try this for size! A full level of Zeewolf 2, with fighter escort duties and a remote control tank. You'll just love it!

ZeeWolf is a helicopter gunship. A powerful helicopter gunship. Your mission, should you choose to pursue it, is to fly one as a mercenary for a corporation called Zenith. This is a war of the future - not between countries - between companies. The enemy is called Eclipse and conveniently they paint all their vehicles green and their soldiers wear green uniforms. Likewise, Zenith prefers blue. Remember this and you won't go shooting up your mates.

To load Zeewolf 2 simply insert disk 125 into your Amiga's internal drive and restart your machine. After a few seconds a workbench screen will appear followed by a rendered helicopter screen. Then after about 30 seconds a play game/control option will appear. The default setting for Zeewolf 2 is Joystick but if you would like to use the more complex

mouse control then use the 'down' cursor button to select control option. Pressing the fire button will enter a new screen where you can again use the fire button and cursors to select mouse control.

Once you have selected 'start game' a scenario will slowly unfold with your mission on it. Once again using the up or down cursor you can scroll through the objectives - all of which are marked out on a 3D map. Once you've seen all there is to see, and the various locations on the map are imprinted on your mind then press the fire button and the mission will begin.

Control freak

Have you ever flown a helicopter? No. Neither have I. My



that is off to anyone who has done so. Controlling Zeewolf's ostensibly straightforward. Moving the joystick left and holding it flies the helicopter left, moving right turns it right, forward flies forward and back flies back (towards you, not backwards!) It will also fly diagonally. By flicking the joystick left, right forward or backward your chopper will turn in that direction and stay still. Actually holding the joystick in any direction will make it dip its rotors forward and pick up speed. Unfortunately this also makes it dive towards the ground, but by centring the joystick it will cease to dive. It will take a little time to get used to this control method but it's fairly easy after a while.

Unless you try mouse control. Some of the boys at Binary Asylum swear by this method, but we just haven't been able to master it at all. Still it might be worth a try. If you read our preview of *Zeewolf 2* (page 43) you will notice a reference to moving the grass. This is what happens if you move the mouse too much in any direction: your chopper will skew 90 degrees forwards, then hit and skim the ground like a skimmer.

Pressing the right mouse button revs up the engine and speeds up the process; however, go too fast and you'll crash and

blow up. It would appear that mouse control is indeed the best and most intuitive way to play the game but it's a bit like learning how to juggle with your mum's favourite crystal. Give it a go.

Guns 'n' maps

The other controls you will need are the space bar which toggles between the three weapons at your disposal: the 'G' button which lowers the landing gear and the return key which toggles between the map and the playing screen.

In the top left hand part of the console at the top of your screen is a local area map which has all enemies marked on it as red dots, and friendlies as yellow dots. Enemies include tanks, anti-aircraft emplacements, light tanks, mobile AA guns, landing craft, armed motor boats, a

bloody great destroyer, a couple of commandos (whom you should not mistake for your own troops under any circumstances), a STOL fighter and two different types of helicopter.

To shoot at something head towards it, wait until it is in the target camera at the top right hand side of the console and open up using the fire button (left mouse button).

To toggle between bullets, missiles and homing air-to-air missiles use the space bar. Although the weapons have a limited auto-aiming facility, getting on target is still a fine art and you will need practice.

Little blue men

You will find a building which you can shoot up and when you do a little blue man will be released. Hokey Press 'G' to land near him and pick him up. The little blue man counter on the centre console indicates you have one.

We asked Binary Asylum for a difficult level of the game and boy did they give it to us. You'll need to re-fuel, re-arm and re-amateur your Zeewolf during the game as things get more frantic,

so head for a friendly aircraft carrier. You will have to search for it but it will eventually appear on your local area map as four yellow dots.

By landing on the rear deck (marked X) — a tricky task first time around, and discharging the gazers you have rescued your armour rating will

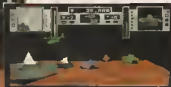
increase (signalled funny enough on a multi-coloured bar called Armour). Don't worry about the blue aircraft which seems overly happy to see you, he's there to help later on when you can escort him into battle. Then move to the front of the aircraft carrier, land on the Diamond and wait for the tank to connect up to you. This will bring up a new screen which will automatically refuel your 'copter and allow you to re-arm it (using the cursor keys up and down to select weapons right to load and fire to disconnect from the supply tank!). Re-arming costs money and the only way to get money is to shoot the enemy, so you'd better have polished off some bad guys or you won't be able to afford it.

If you escort the airplane over a battle zone it will blast away at the enemy for a while. But if you want to really kick butt try finding the remote vehicle (a small tank with a crane) and use the big tank! See the boxout on your tank for more control information.

Find your way

Pressing the enter key will bring up the main map screen, with the entire land and sea mass shown on it. It will not have the enemy marked on it but when you are flying long distances you can use this map, with the smaller flight screen in the top right hand corner, to make sure you're on the right track.

And so — go to it. You will learn more about the demo as you go through it. This level should keep you busy for a while because there are an awful lot of enemies to counter. Prepare to fly, prepare to die, prepare to enjoy! ■



cover isles How to Load...

Imagine 3.0

We were determined to give you the complete *Imagine 3.0* package this month, including both the 'Integer' and 'FPU' versions plus some extra bonus objects that aren't even included in the full release version! We also wanted to make *Imagine* accessible to as many different Amiga users as possible, and that includes both floppy and hard disk users. Somehow we've managed it, so as long as you have at least 3Mb of RAM, your *Imagine 3.0* cover disks will take maximum advantage of your Amiga system. In order to achieve this without attacking a whole box of disks to the cover of the magazine, some cunning data compression techniques were employed. Follow these instructions very carefully to install *Imagine 3.0* on your system.

Decompressing Imagine 3.0

1. Before you start you'll need to have two spare disks for the hard drive installation, and five for floppy installation.
2. Regardless of your Amiga set-up, the first thing to do is insert cover disk 123a. The simplest method is to boot from disk 123a, so put it in the internal drive and reset the Amiga. Hard drive users can boot from the hard drive first, double click on the CU123a disk icon and then double click the DUMenu.
3. From the menu you can choose to have your decompressed disks checked for errors. If you want this, click on the button marked 'Don't verify expand' which will switch it to read 'Verify expand'. If you have another floppy drive, you can choose to expand the disks to that. Select the drive with the button marked 'Expand to DFC'.
4. To expand the first disk, click once on the *Imagine 1.DMS* icon or press F1. Label your first spare disk 'Installer 1' and insert it at the prompt.
5. When the menu reappears, click on the second disk icon or press F2 to expand the second disk. You'll be asked to insert cover disk CU123b, then your second blank disk, which you should label 'Installer 2'.
6. Once the menu reappears, you will have completed the first stage of the decompression. You will now have two installer disks, from which you can install the *Imagine* system to floppy disks or a hard drive.
7. Floppy users will now need to reboot from Workbench. Hard drive users can quit the menu by clicking in the top-left corner of the window.
8. From the Workbench screen, insert the disk marked 'Installer 1' and double click the installer icon.
9. You will see three icons: *HD_Install*, *Floppy_Install_INT* and *Floppy_Install*. Floppy users with no FPU should double click the *Floppy_Install_INT* icon, while those with an FPU should double click *Floppy_Install_FPU* icon. Hard drive users should double click the *HD_Install* icon.
10. The floppy installation will require your three remaining spare disks. These will be formatted during the installation process. At this stage you should write protect your installer 1 and installer 2 disks in case you overwrite them.
11. The hard drive installer uses the standard Commodore installer front end. Choose whether you want the FPU or Integer version installed. The FPU version will crash on a machine without an FPU but will lead to faster rendering times on FPU-equipped machines.

Running Imagine



encounter miscellaneous errors in the use of *Imagine*, quit all extra background programs and use normal memory saving techniques such as disabling unnecessary drives and peripherals.

To use *Imagine* from floppy disk, you'll first need to boot from your Workbench disk. The *Imagine* program can be found on the *Imagine 1* disk. You'll find the objects on the *Imagine 2* disk. Hard drive users will find *Imagine* in the destination specified during the installation. If memory problems occur, or you



Zeewolf 2 - Wild Justice

Zeewolf 2 is a self booting disk. To run the game first take the disk and write protect it. This is done by slipping the little tab in the top right hand corner of the disk up to expose the hole.

Now insert disk 125 into your internal floppy drive and reboot your Amiga.

Within seconds a rendered loading screen will appear. After a little while a new screen will appear which allows you to select 'Start Game' or choose control.

Zeewolf 2 works best if you have fast RAM in your Amiga but we experienced minor problems with some accelerators. If you find that the demo crashes try disconnecting your accelerator or peripherals.

IF YOUR DISK WON'T LOAD

If you get to great trouble to access the CD Amiga Magazine cover disks, we will be happy to provide you with a replacement disk. However, if you're experiencing problems, follow the simple guide. The size separately from each cover disk on a standard issue diskette. It some users are unable to use the diskette, we cannot ensure compatibility.

1. Remove all unnecessary upgrades and peripherals, such as printers and modems. Some upgrade packages can also cause problems.
2. Follow the instructions on disk and purchase pages, strictly.
3. If you call experience problems loading the disk, call the PCOpen hotline on 01955 358 596 between the hours of 10am and 12pm Monday to Friday.
4. If they advise that the disk is faulty, fill in your details on the form below and send this form, along with the faulty cover disk and a 35p stamped self addressed envelope to:

CD Amiga Magazine Disk Return, PCOpen Hotline, Doncaster, Yorkshire, YO1 1PP.

Mid Gloucester, G14 7Y.

NAME: _____

ADDRESS: _____

TITLE OF AMIGA DISK: _____

DISC NUMBER: _____

DESCRIBE EXACTLY WHAT HAPPENS WHEN YOU TRY TO LOAD THE DISK. _____

DATAFLYER SCSI+

Now includes CD ROM drivers and instructions.

The Dataflyer is a 35 bit SCSI II controller card that converts the signals on the internal IDE interface to also run SCSI devices at the same time as the IDE hard drive.

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News



AT Quad Speed Drive Revealed

A miga Technologies have announced that they are preparing a quad speed CD-ROM drive for launch early in the new year. The Q-Drive as it is currently known will retail for around £229 and will be supplied with official CD32 emulation software that should get around current incompatibility problems. Like all other drives currently available it uses the PCMCIA port for speed and convenience and has a transfer rate using a 16-bit ATAPI/EIDE bus of 600Kb per second.



Soft-Logik Problems

Anyone experiencing problems getting hold of their PageStream update shouldn't worry according to Soft-Logik. Delays to some shipments have been caused by them running out of manuals!

Soft-Logik are now having them re-printed while we write and we've been asked to apologise on their behalf for any delays experienced.

If you are worried about your order or want to know when it will arrive then contact them on tel: 001 314 256 9596 or fax: 001 314 256 7773. You can also write to them at: 315 Consort Ave St Louis, Missouri, MO 63111 USA.

Escom Selling A1200s

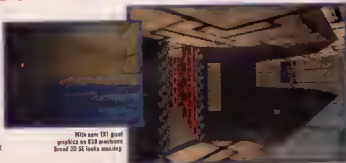
Our wish to see more Amiga coverage in 1996 has come true already. Escom's recent magazine insert in the national press included the Amiga for the first time.

Priced at £398.33 (a whole 67p cheaper than anywhere else) the Amiga got disappointingly little space in the advertisement, but with a claimed circulation of 20,000,000 through the national press it's certainly the biggest advertisement the Amiga has had yet.

Also, the same magazine has the Escom version of the Commodore PC advertised on its outsideback cover. A Pentium, it sells for £1600!

A NEW Breed?

S pokesman for Team 17 told us that Andy Clitheroe, *Breed 3D*'s programmer has already finished an update disk for the game. The disk will "crush any opposition" alleged Steve Heley, their new PR man and 'net browser though he wasn't very forthcoming with full information on the project. This is because Team 17 are, at the time of going to press, still deciding when, how and if they are going to release it. According to Steve it is likely to incorporate a level designer, more bad guys and a "significant" graphics update, allowing machines with faster processors and more RAM to have much less blocky graphics. With a bit of luck we should have it for review next month. That's if Team 17 decide to publish it, so get on the phone now to encourage them: (01924) 267776.



With new 3D pixel graphics in *Breed 3D* looks amazing

Computer '95

- PowerPC Cards
 - New C language
 - DraCo super computer
- Mat Bettinson reports ...**



The Computer '95 show in Cologne should really have been called Amiga '95 because although there were lots of companies there demonstrating games for the PC and console no-one was in any doubt as to what was causing the biggest stir: the Amiga. From the Amiga Technologies stand through to the numerous software and hardware retailers Amiga lot was selling faster and causing

more interest than anything else. All of the big German manufacturers were there along with some of the UK's best known suppliers.

We've covered the bigger stories under separate headings but here's a brief run-down of the rest of the show news. **ProDad** authors of the CU Amiga cover mounted **ClariSSA**, were really putting on a show to those interested in video. Demonstrations of their software product range as well as complete solutions for genlocks, video editing/effects animation, titling and even CD cutting. **Stefan Ossowski's GTI**, occupied a large stand and was doing a roaring CD trade as well as selling out of **Directory Opus 5**. The **UK's Fourth Level Developments** were present on the GTI stand too, offering support and advice on **AmiFileSafe**, their excellent replacement file system.

HiSoft System's David Link was demonstrating a prototype of the Surf Squirrel, the next generation Squirrel SCSI interface with an integral serial port. They also

had a large television displaying an MPEG video that was playing from a prototype of their Squirrel MPEG unit, connected to an Amiga via the Surf Squirrel. It looked around the same quality as the MPEG card for the CD32, if not better.

Amiga Oberland another German company were showing the rendering package **Reflection 3.0**. It was seen running on an Amiga 4005 and a PC. The post effects looked absolutely brilliant and the front and was being manipulated by people successfully after only a short acclimatisation. Unfortunately **Reflections** isn't available in English at this point in time but we told them they should do an English version and we'll let you know if this happens.

ACT Electronics the makers of the prolific **Apollo** range of accelerators, were showing quite a few new products. The **4040/4060** accelerator with a built in SCSI interface and provision for up to 128Mb of RAM was on offer and you can expect a review of it in next month's CU Amiga Magazine. They also had a 1240 accelerator on display though after talking with the manager for some time, it appears that they are suffering a shortage of 68040 and 68060 chips from Motorola and even though the unit is finished, they can't ship any CPUs as they haven't got the CPUs. Also on

display was the **SK32**, a new low-cost SX1 type clone with much the same expansion capabilities. The retail price in Germany was around the 395 DM region which means it should be well under £200 in the UK. We'll try and bring you a review of this unit as soon as a UK distributor becomes available.

PowerPC

Barely two weeks after Amiga Technologies' Video Toaster Expo announcement of the move toward Motorola PowerPC RISC CPU technology **Phase 5** stole the show. Occupying a large and impressive stylish black stand at Computer '95 in Cologne, Phase 5 showed that they were working on PowerPC technology well before Amiga Technologies made it public. Publicly displaying a PowerUp board in a glass case indications are that Phase 5 decided to design and build PowerPC accelerators well even before Amiga Technologies had even made a decision to use the chip.

The prototype unit on display possessed a 68030 in addition to the 68MHz PowerPC 604. The real snag being that since the AmigaOS is not ported to the PowerPC at this moment in time, it must still run under the 68030. In effect the PowerPC RISC CPU is a co-processor working in tandem with the 68030. Phase 5 already have the **CyberGraphX 3rd party**



■ The Amiga Technologies stand was centre stage in Hall 1. It was heavily staffed and always crowded. There were 8128s, 8688s and a prototype of the new G-drive as well as various Amiga merchandise.

■ Various Amigas were being demonstrated with multimedia applications, the Internet, music and other business software. Above, TechnoKrit of Amiga Technologies exhibit exercises his keyboard skills.



▲ MicroniK produces various towers for Amiga systems. Here is one for the A600.

reconfigurable (RTG) graphics system entirely ported to the PowerPC for blistering graphics speeds never before seen on an Amiga. Since Amiga Technologies announced that they are 'working with' Phase 5 to port AmigaOS to the PowerPC, this means that not only will we have PowerPC co-processor accelerators in the short term but eventually the entire Amiga range can move to PowerPC fast thanks to the foresight of Phase 5.

The planned cards will have 64-bit wide memory expansion bus 64-bit wide local bus with optional PCI bridge CyberGraphX 3.0 native. The low end model will be based on the MPC803e 100MHz+ and is due around mid 1996. The high end model will be based on the MPC820 rated at 300MHz+, but no details have been announced about when this version will be ready. Prices will be in the £400 to £1000 range.

Full details of the forthcoming range of PowerPC accelerators were not available at the show,

but Phase 5 did announce some exciting prospects. The first being that big-box Amiga PowerUp boards will have the option of a PCI bridge bus, paving the way forward to being able to use the myriad of ultra cheap and high performance PCI cards on the market. Video accelerator graphics boards and high speed disk controllers are just a couple of the benefits that the PowerUp'd Amiga has to gain at the hands of Phase 5. Plans were also in the works to provide a PowerUp upgrade program for their existing 680x0 based accelerators.

Phase 5 sources said that the porting of AmigaOS will start with the Exec part of the OS being ported first with the rest of the Amiga operating system running under 68000 simulation in the meantime. Later the entire OS would be ported to the PowerPC. This was also Amiga Technologies' goal though they aren't the only ones behind the PowerUp project. **Almathera**, **Maxon Computer GmbH**, **ProDad** and **Softwood** are all supporting Phase 5 and will no doubt be working feverishly on the evaluation boards and developers kits that Phase 5 say will be available in the first quarter of 1996. Looks like the RISC Amiga will be here sooner rather than later. For further information call Phase 5 on (Germany) +49-6171-583787.

MicroniK towers

Tucked away to one side the MicroniK stand was attracting more attention than its neighbours and for very good reason: they had lower expansion kits for just about every model of Amiga

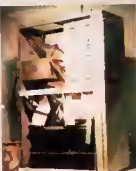
Not just new and larger cases to house your Amiga and its drives, these are real towers that add Zorro capability to vast majority of Amigas which don't have it. Zorro slots are present in all big-box Amigas and as such there's a tremendous variety of expansion cards that any Zorro equipped Amiga can make use of.

For instance, owners of even an old A500 could fit their machines into a MicroniK A500 tower with a Zorro bus-board and then go on to fit a 24-bit graphics board, SCSI controller and 16-bit sound card. Given the horrendous cost of the Amiga Technologies A4000 tower and the discontinuation of the A4000 desktop, fitting an Amiga 1200 to a tower could become a real solution. Turn to page 68 for a full review of the MicroniK A1200 tower system. Amazingly, MicroniK even cater for the Amiga 600. This tiny Amiga can suddenly be turned into a very large and unrecognisable machine.

To the max

Maxon Computer GmbH are a German company that vigorously developed Amiga products even during the year of darkness whilst Commodore lay in ruins. Best known in the UK for their excellent **Cinema 4D** rendering package (B24 CU Amiga Magazine November 1995). We were shown evidence of continuing development on this package including details of some of the features to be included in the 1995 3.0 release. The most noteworthy being the addition of **LightWave** square 'lens flares'. The famous Amiga animator, Tobias Richter was drawing large crowds by showing what could be done with Cinema 4D. However, Maxon aren't just doing this with the rendering market. They had a multitude of other exciting products on offer too.

Programmers were well catered for with **MaxonASM 1.1**, **MaxonPASCAL 3**, **MaxonBASIC 3** and **MaxonC++**. On the video front they have the **MagicLink 3D** object converter (spawned out of Castellan from the **Cinema4D** package). Add ons for the **Cinema 4D** package were also in abundance with **MaxonCinemaFont** providing amazing 3D fonts for **Cinema4D**. **MaxonCinemaWorld** contains a whole bunch of landscapes to build realistic 3D scenarios. Unfortunately Maxon are not currently translating any of these goodies into English at the moment, but you'd never know what a bit of encouragement



▲ The wonders of a Zorro. One of a new breed of supercomputer based on Amiga.

will do. Contact them at Maxon Computer GmbH, Industriest. 26, 65760 Echborn, Germany.

MUI 3.0 push

The first thing we noticed at the show was the profusion of posters stuck on nearly every structure advertising MUI 3.0 for 40 Deutsch Marks. Given the performance increase that MUI 3.0 has promised over the earlier 2.3, it's little wonder that the German company distributing it was inundated with takers. Turn to page 62 for a full review of MUI 3.0. In fact, just before going to press, the author Stefan Stuntz released the public unregistered shareware version on the public domain which is actually at version 3.1. Internet users can find it at the Amiga in the path: [dev/guim31.usc.hk](http://dev.guim31.usc.hk). Otherwise call your favourite PD house and ask for MUI 3.

Supercomputer

Macrosystem GmbH are a German company classed with the performance of high end Amigas so they decided to build their own. They have created the **DreCo**, an Amiga clone capable of running Amiga applications under AmigaOS but without a single Amiga custom chip in sight! The heart of the machine is a CPU card with either a 68040 or 68060 mounted, depending on the machine purchased. This card also holds the Amiga Kickstart ROMs plus the floppy and hard drive interfaces. The graphics are handled by one of Macrosystem's other developments, the **Ratons**. However, it's connected to the CPU board with a custom memory bus which is much faster than even the mighty Zorro III! Sound handled by the 16-bit **Tocatta** card. All of this providing a far higher specification Amiga than the A4000, at a better price.



▲ We picked up our review copy of MUI 3.0 at Cologne. See the review on page 62 for more details.

The DraCo 68040 33Mhz costs around the £2000 mark while the 50Mhz 68060 version with 4MB of Video RAM and a CD-ROM costs about £2750. An Amiga 4000T costs £2500.

Macrosystems showed the DraCo running with a new version of *XiPaint* which was painting 24-bit realistic air brush effects without even a hint of a slowdown. Also *Final Writer* and *WorldWorth* and even Maxon's *Cinema 4D* were shown to operate perfectly at speeds not possible with any current model of real Amiga.

Jörg Sprave, Macrosystems' general manager, took time out to tell us what his thoughts were on Amiga Technologies move to PowerPC technology. His opinion was that Motorola had not delivered the goods when it came to orders of 68060 and also referred to chip shortages which affect even 68040 supplies. He went on to say that he didn't think it was a good idea to reward such a company with future business in light of the way they had treated the Amiga market.

Macrosystems are known to favour the awesome DEC Alpha RISC chip which is targeted for inclusion in their DraCo machines early in 1996. When quizzed about this, Mr Sprave pointed out that the DEC Alpha is faster, cheaper and available in quantity whereas the PowerPC range is not. Macrosystems illustrates the differ-

ence of opinions on the way the Amiga market has to go. Those who primarily want to shift a lot of low-end machines would agree that the PowerPC is the way to go, while those who are involved in the high-end professional graphics trade, of which the Amiga has always been traditionally entrenched, need levels of CPU performance even greater than the PowerPC can deliver.

Storm in a C-cup

Oddly present on Amiga Technologies stand, were a group of people who had created a new Amiga C/C++ compiler. Whilst a new language in itself isn't too interesting, the problem is that the premier package used by most Amiga developers to program their products has been SAS C. But SAS was quick to drop support for the Amiga shortly after Commodore's demise. Rumours continue to circulate about their possible re-entry into the market but in their absence there's been considerable interest in the Storm C package as a successor.

Some of the features of Storm C include resource tracking, text editor with syntax highlighting and an integrated (to the editor) debugger. The project management system is also said to be in its late stage. We'll keep you posted as soon as we have further information about an English version. Expect a review soon. ■



▲ David Link (right) and Willett are very excited about his Squares/MPEG device. So were the public.



▲ A well known journalist (left) talks business with a well known Games peripheral developer.

Music Wanted

Are you a musician trying to get your tracks released on vinyl? If so, then Martin Munn wants to hear from you. He's just set up a new label dedicated to releasing music created with the Amiga, initially duplicating on the DJ friendly 12" vinyl format. The first release on the label is the Alternative Reality EP which features four tracks ranging from jungle through to techno and ambient. The EP costs £5 including post and packing and is available from Martin Munn, 20 St Georges Buildings, Boudon Street, London W1X 9JA. Any interested parties can also submit Amiga modules or tapes to the same address.

More Imagine

Need more objects for this month's *Imagine 3.0* cover disk? Krypton Design have just released a collection of objects and brush maps for *Imagine 3.0*, based around a theme of dinosaurs and insects. The ten-disk set costs £24.99 and is available from Krypton Design, 6 Kingsnorth Gardens, Folkestone, Kent CT20 2QW. See the review in the next issue of CU Amiga for more details.

Show Postponed

World Of Amiga, originally scheduled for December then, as advertised last month, moved to January has been revised again. To coincide with the launch of new products from both AT and other producers the new show is now planned for March. More details as they arrive.

Who's Girlfriend?

As reported last month David Pleasance has teamed up with a group of music makers to make an Amiga related CD of original music. Although the CD contains real guitars and synths it was sequenced and tracked on an Amiga 4000 and the songs, especially those written by David himself, are Amiga themed. For more details contact David Pleasance at: Tangent Music on 0181 573 5614. The CD costs £11.99 (plus £4.19 P&P in the UK) and should be available in time for Christmas.

Having Trouble with Amiga-E?

Last month's disk instructions for the Amiga E package, suffered some formatting errors with the DOS commands to install Amiga E on hard drive. The instructions on page 11 should read:

Copy Amiga_E_v3.1i:#? DH1:AmigaE ALL
Rename DH1:AmigaE/C DH1:AmigaE/Bin
Copy Amiga_E_v3.1i_Extras:#? DH1:AmigaE ALL

Further on;

Makedir DH1:AmigaE/Modules
Copy EModules:#? DH1:AmigaE/Modules ALL
Rename DH1:AmigaE/Modules/Scr DH1:Amiga/Scr

Later when dealing with the lines to insert into your user-startup sequence:

Assign EModules: DH1:AmigaE/Modules
Path DH1:AmigaE/Bin ADD

Finally, when compiling the HelloWorld Example;

CD DH1:AmigaE/Scr
EC HelloWorld.e HelloWorld

Please note that any occurrence of 'DH1:' should be replaced by the logical device name of your own hard drive where you are installing AmigaE. The person responsible for the formatting errors has been forced to drink a pint of chicken soup from the office drinks machine.



Matt Broughton's



Games in view

Gametek are back on the scene, and following the alleged recent release of **Super Street**

Fighter 2 Turbo will be shortly gracing the shelves with their space epic **Star Crusader**. Due or release at the end of the month (retailing at £24.99) this space drama comes on no less than 12 disks, but as Gametek's Julia Adrian Cole says, "It's really a PC game that we've managed to bring to the Amiga. I'm sure Amiga owners will appreciate the opportunity to play a game of this calibre, and hopefully most Amiga users will have invested in hard drives by now. Once they install **Star Crusader**, it's a treat" Well quite.

Another release from the gametakers is a bit of a blast from the past. **Evolution** is game I remember going to see and pre-view some TWO YEARS ago! is a prehistoric platformer from the makers of old Amiga favourite, **Humans**. A clever combination of **Humans**, **Lost Vikings**, **Troddlers**, **Lemmings**, and, er... well you know, those sort of puzzle/platform games. **Evolution** will appear on A1200 and CD32.

End February of next year "there will be no apparent differences between the two versions, apart from perhaps some enhanced music for CD owners. As far as future Amiga production goes from Gametek, they're very much dependent upon how Amiga Technologies manage the sales and marketing around the games. Julia Adrian Cole says that, like Gametek aren't taking on more Amiga projects, should

More companies arriving! More companies leaving! Gosh, isn't the Amiga games scene just full of surprises.



A New key Internet Development's Atrophy should be with on very soon. Expect to see a review and more!

Christmas sales look positive, and if Amiga Technologies get enough Amiga users back on the scene, there are titles out there to be picked up and they're looking to become involved positively. "It seems as though the Amiga is always a victim" rejoins Cole. "Where the Amiga originally suffered from too many conversions brought up from the Commodore 64, it's now plagued by PC software that's been hacked down to fit in. If you want the Amiga to succeed, you need REAL Amiga games such as the likes of **Evolution** and **Worms** (credit where credit's due). Wise words indeed, mate.

Frastyle, the development team behind **US Gold's Super Street Fighter 2** reckon that, even though the CD32 version should have been around about eight months ago (!), it should finally be surfacing any time now. The bad news is that they won't be looking to produce any more Amiga games. Another sad loss.

Still it's not all doom and gloom. **Intercept** Development are a new outfit with an absolute buck-load of excellent-looking games on their way. With only two bodies in charge, Trevor Mansah and Frank Tout, this company have actually been working on an Amiga games engine for

some four years, but the first games utilising this technique are only just surfacing now.

Atrophy is the first in the list, featuring hi-res graphics, fifty frames a second for animation, and quarter pixel scrolling all over the place. The team have only held on as long as they have because they didn't want to

release 'fun of the mill' software and now that the initial four years work has been done (er... is there still a market?) they reckon that each project should be able to complete in around six months. Expect **Atrophy** around Christmas.

Altamere Futures will be the next game after that, featuring **Flashback** like platform papery, complete with all the hi-res cleverness that the company hope will become their trademark. The eight-way scrolling product should be surfacing at some point in the middle of next year.

Another release for next year will be the interestingly named **Domains 1: The Chthonion** (which, apparently, is not a spelling mistake but a demonic creature based on some nasty lump thought up by that strange

author, Lovecraft). A point of click adventure featuring those naughty hi-res graphics again, along with 256 colours and (hopefully) rendered graphics. **Intercept** are boasting some top musical work with all their products (which, incidentally, will all be AGA).

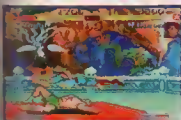
And, just to finish things off nicely in a 'what goes around comes around' sort of way, the last game to be mentioned by Frank is called **RALF** (Rapid Action Lone Force) and is based on the classic game from the CBM 64 and Spectrum years, **Green Beret**. Expect more around April of 1996.

And finally (no, not some 'amusing' story about the Ousem Mum) **Empire Interactive** have just announced a brilliant new compilation pack called **Soccer Starts '96**. It's a pot pourri of footballing fun (good sales pitch that, eh?) containing FIFA International Soccer, **Kick Off 3 - European Challenge, On The Ball, and Premier Manager 3**. All of these will cost you a piffling £34.99 which, as far as I'm concerned, is damn good value for money. Look out for it in the shops soon.

And that's that! Why not put the kettle on and brew up a cuppa while you enjoy the HMV charts. Be seeing you. ■ **Matt Broughton**

HMV CHART... Amiga Top Games

No	TITLE	PUBLISHER
1	Worms	Ocean
2	Alien Breed 3D	Ocean
3	Sensible World of Soccer	Virgin
4	Player Manager 2	Virgin
5	Super Skidmarks	Guildhall
6	Lion King	Virgin
7	Monkey Island 2: LeChuck	US Gold
8	Exile	Guildhall
9	Beau Jolly Compilation	Beau Jolly
10	Dungeon Master 2	Interplay



Why are we waiting, why are we waiting? Super Street Fighter 2 looks whenever and there!



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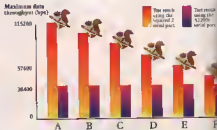
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Note that the original Squirrel interface (the original to the Squirrel) does not include a serial port. © HiSoft 1995

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Imagine 3.0

Make all things bright and beautiful this Christmas. Our spectacular cover disks contain the complete Imagine 3.0 program - one of the best 3D image rendering packages there is. Don't worry, you don't need to be a technical genius to create wonderful pictures with this complex program. Follow our examples over the next few pages and you'll be knocking out pictures 'till the cows come home. You couldn't have wished for a better Christmas present now, could you?



My! What Big Features You've Got?

Imagine 3

▲ Many PostScript-compatible fonts can be loaded into Imagine and forced into objects. The result is smooth lettering which you can then treat with textures and brushes like any other object.

There can be no more light sources in the scene as you require. Here there is a light source inside the lamp, as well as one in the front and another in the rear. All lamps can be made to cast shadows if required.



▲ Objects can be given special textures which are generated internally, rather than given a brush map. This procedural texture looks very smooth and can be finely controlled.



▲ Imagine 3 can add a lens flare effect to the image, although the light sources were reflecting inside the imaginary camera used to 'photograph' the image.



▲ The render compiler utilizing tactics available will allow you control realistic objects. If you can see it, you can be sure you can model it with Imagine 3.



▲ The physical properties of objects can be adjusted to create translucent solids or highly reflective mirrors. You can combine these settings with textures and brushes to create almost anything.



1 First we attempted to use images of some clouds. To make it more interesting, it was created around a bird in an image processing program (for Experiment, ImageFX or Photoshop would do) and saved to disk.



2 Some PB objects were placed in the Stage editor. The cloud background was added in the Scene editor's Global menu. The ground render, 1128 by 1024 pixels, took 28 minutes to render on an 48680 with 2MB of RAM.



3 More objects and a lens flare effect are added. The image created in step two was used as a background, and the image re-rendered to combine the new sets of objects. Combining them moved time and memory.



4 A logo was created using the Raster editor and a PostScript font. The logo object was given a texture and placed over a caps which was made into a light source. Finally we're ready for the end result (see last).

Get Rendering!

Got the idea? Now turn the page for our step-by-step guide to rendering your first *Imagine 3* scene. You'll also find a reference guide to each of *Imagine 3*'s main sections on page 30.

The image was rendered with the first image from Step three as a background - which if you remember, used Step two as a background. The second image was rendered with the first image from Step three as a background - which if you remember, used Step two as a background. The third image was rendered with the first image from Step three as a background - which if you remember, used Step two as a background.

A simple tutorial

Now you've seen what you can do with your Imagine 3 cover disk, why not try it out for out for yourself? Here's an easy to follow step-by-step tutorial for rendering your first Imagine 3 scene.



1 Imagine is such a powerful program, that you can't expect to jump straight in and start creating complicated masterpieces. There are many different editors, tools and options to get to grips with first. The good news is that you don't need to know everything to make pictures. You can render images which still look great even though you only know a tiny percentage of what is possible.

Creating images with Imagine can take a long time, and it makes a big difference if you have a fast Amiga with lots of memory. The basic rule is that you can never have too much RAM or a processor which goes too fast. In order to keep your rendering times to a minimum, stick to small resolutions such as 320 by 256 and Scanline rendering mode to start with.

Start here ...

1 When you load Imagine you will be left at the title screen. To start, you either need to

load a project you made earlier or create a new one from scratch. Select Project New. You will be prompted for a name to enter something sensible.

2 You will now be at the Project Editor screen. This is where the image rendering is controlled from, however we haven't got anything to render yet. So there is little point hanging around here. Use the menu to go to the Detail Editor.

3 The Detail Editor looks a little dull to start with, but we can soon change that. From the Object menu, select Load and look in the directory called Objects. Swap disks if necessary. Select the object called Cow.

4 When it has loaded, you'll see a wireframe representation of a cow. Click on the A button to rotate the solid model and Z to Zoom In and out. The right mouse button also helps when rotating.

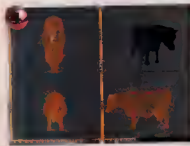
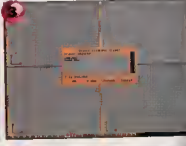
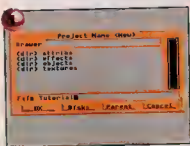
5 Now use the Quickrender option from the Project menu. The default settings will do fine

so click on OK. Quickrender will create a solid rendered image of the wireframe model so you can see what it will look like when it's finished.

6 Let's start making a scene. Press F1 to highlight the Cow object (all objects must be highlighted before they can be changed) and select Delete from the Object menu. From the same menu, select Add and Ground. This is a quick way to create a useful solid surface. It doesn't look like much though!

7 Highlight the ground (press F1) and then select Attributes from the Functions menu. You should end up with a display like this. This is how you can alter the appearance of objects by changing their colour or texture. You can also paste other IFF drawings onto them as 'brushes'.

8 Click on the Colour button and adjust the sliders to make a nice grass green colour. The other parameters control how the object will react to light, for the moment the default settings will do. If you have a fast Amiga, try



adding a texture, click on the texture button, find the textures directory and load one such as 'capped'. The default settings will do nicely.

9 Save the object we have created to disk. Normally you should save all the objects associated with a particular project in the project directory. Every time you start a project a new 'directory' is created.

10 Let's move to the Stage Editor. Use the Project menu to get there. This is where all the objects we have created and adjusted in the Detail editor are positioned and light sources are added. Load in the Cow and Ground objects from the ObjectLoad option. However, the Cow and Ground aren't quite in the right position. It may look fine in the perspective view, but change the mode from Wireframe to Solid in the Display menu and you will see the problem.

11 Highlight the ground. If the cow is highlighted instead, use the Find Requestor from this Pick/Select menu and move it. To move it, click the P button and drag it with the mouse. Position it under the Cow then press the spacebar.

12 Before you can perform a Quick Render you will need to add a light source: use the Add / Lightsources option from the Object menu. Highlight the light and move it high above the scene. Press Right Amiga and I and Right Amiga and O to zoom In and Out so you

can put the light at a suitable distance.

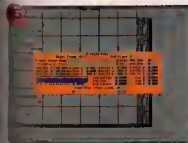
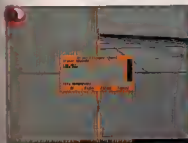
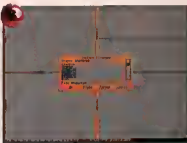
13 Now highlight the camera and move it back a bit. Select CameraView from the Display menu so you can 'see' what the camera is pointing at. To make it point at the Cow, press Right Amiga and K (for Track). You will need to enter the name of the cow object (which is actually 'HIDE' - use the Find Requestor option in Pick/Select to confirm this).

14 Select Save All Changes from the Project menu and move to the Action editor. This editor is mostly used during animation but there is an important requestor here, the Globals Editor. Click on the red dot - the globals actor setting

15 Copy the settings until they look like those in the diagram. This will add some extra lighting and a nice blue background. Save all changes and head for the Project Editor.

16 Before you can render an image you need to create a rendering sub-project, so click on New and enter a name. The default settings will do for now, although you may want to make the screen 256 lines high.

17 Highlight the '1' bar by clicking on it, and then click on Generate. When the palette requestor appears select the first option. After a few moments the render will have been completed and you can view your 3D Cow.



Program Sections



Imagine is organised into a set of editor screens. When constructing a scene or animation, you will use several different editors, switching back and forwards between them. Each editor is used for a specific task and contains its own pull down menus and requesters. This approach means that only the essential controls are available - you won't be bombarded with options at every turn.

Project Editor

The Project Editor is where you initially create or load a project (the objects, stage settings and other information). This is also the editor which is used to define the display used for rendering, by opening a render sub-project. Each project can have many different render sub-projects. For example, you may want to create a wireframe animation as well as a full-colour scan line render.

Detail Editor

The Detail Editor is where you can manipulate existing objects, or create simple shapes from scratch. You can also assign textures, colours and brushmaps and perform various other fine-tuning to shapes. You will often return from the Stage Editor to the Detail Editor to adjust your objects.

Stage Editor

The Stage is where you position your objects. The Stage has an extra component: the camera. The camera is what 'sees' your objects and it is the camera view which will be rendered in the Project Editor. You will also add light sources and preview animations in this mode.

Action Editor

From the Action Editor you can control the number of frames in an animation (by default there is only one image). Each object has a set of attributes which are represented by a coloured horizontal line. For example, you can alter the size or position of an object and let it vary from frame to frame. The special Global object is used to define

background images as well as star fields and effects such as fog.

Spline Editor

The Spline Editor is used to create smoothly curved objects. It is most often used for dealing with Fonts (many PostScript fonts can be loaded and used). Before a Spline object can be used however, it must be converted into an ordinary Point-based object and saved. It can then be loaded in the Detail editor and give textures and so on.

Cycle Editor

Not one of the most used editors, the Cycle Editor is where animation properties local to an object can be defined. For example, you might want to create a What Watch object and move it around the screen. The movement of the hands can

be defined in the Cycle Editor, whereas the movement around the screen is defined in the Action and Stage editors.

Forms Editor

For creating objects from nothing, the Forms Editor is the place to be. It is especially good at creating symmetrical objects such as bottles or glasses, although it can also create objects by combining several cross-sectional views - great for making aeroplane or spaceship fuselages.

Preferences

From the Preferences screen you can control the appearance of Imagine (Do you want a grid in the Detail Editor? If so, how big? What colour?) and also fine tune the rendering settings to control anti-aliasing and other effects.

Going Into Render Mode

There are six different rendering modes. Make sure you use the most appropriate to your needs, or you will waste a lot of time waiting for lengthy projects to finish. You can choose the mode from the 'modify' button or by creating a new rendering sub-project. You can also alter the dimensions of your image, and the aspect ratio (the 'squareness' of the pixels). **B/W WIRE:** The fastest and least impressive render mode: creates a monochrome outline, useful for quick tests of animations. **B/W SHADE:** Adds shaded faces to objects. Very fast, as no textures or physical properties are dealt with.

Very good for checking light positioning.

COLOUR WIRE: If there are a lot of objects on screen, this 256 colour wireframe can help you differentiate between them. **COLOUR SHADE:** Creates a blocky, chunky 256 colour render which can actually be useful in certain situations. Much faster than the next two modes. **SCANLINE:** This is the mode you will use most often. It creates images with texture, shading and other physical properties. Ideal for finished animations. **TRACE:** If you are creating a detailed still life, and need shadows and refraction effects then use trace. It can take up to twice as long as scanline render.



Parameters for Rendering Subproject test2

Rendering Method	B/W Wire	Color Wire	Scanline Trace
	B/W Shade	Color Shade	
Picture & Pixel Sizes	Width	X Aspect	Stores 3D
	Height	Y Aspect	Presets
Path for Still			
File Format	RGB-12bit	RGB-24bit	Separate R,G,B
	ILBM-12bit	ILBM-24bit	DCTV
Active Viewmodes	ARC	NM	HIRES
			LACE
Path for Movie			
File Format	Imagine		ANIM
OK Cancel			



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Out with the old

What's happened in the last year is nothing short of miraculous, but what of the future? We take a look at the Amiga market past, present and future and speak to some leading industry figures to find out their views.



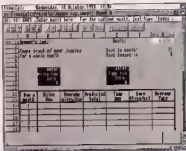
Although most of us view January 1st as the beginning of the new year, companies like Amiga Technologies and the various

peripheral manufacturers and traders in the Amiga market cannot rest until April 1st the end of the financial year. While the Commodore situation, now receding into distant, if painful, memory, weeded out those not committed to the Amiga long term it also left many companies, especially the bigger ones like ZCL and now Silica in some trouble. Meanwhile medium sized companies have continued to thrive, though some of them have had to move across to other platforms as well as Amiga to stay in business.

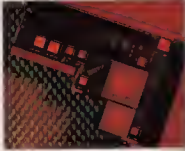
When, last April, Escom announced it would buy Commodore nobody was sure what was going to happen. It had seemed for a while that it would go to the Commodore UK organisation, but in the end the big money was put up by Manfred Schmitt and the old Commodore Germany became the nerve centre of the new organisation, known as Amiga Technologies. Suddenly Escom were every where. They re-opened Rumbelows as Escom stores and now, despite initial uncertainties, these shops are selling the Amiga alongside Escom's own brand PCs and their new Commodore Golf range of PCs.

Things have gone right and wrong for AT since then. They promised A1200s on sale by September/October. By making a 'strategic partnership' with a company called Selecon in France to actually produce the A1200, and setting up a new UK organisation to sort out a software bundle they kept this promise. It was an amazing feat: remember they had never been produced there before and because of stock problems with the old Commodore most of the components have had to be sourced from scratch.

Problems have occurred though. The A4000T and A4000T 060 are behind schedule. Add to this the high cost of the machines and this is a recipe for unrest, in the UK anyway. Further problems have occurred with Scale on the hard drive version of the Amiga A1200 (it doesn't have enough memory) and the World Of Amiga show, originally pencilled in for December, then slipping to January (as advertised last month), has now slipped to March. No indications have been released yet as to how well the A1200 is selling in the UK, but confidence must have been shaken when Silica announced that it was seeking protection from creditors. It has now



▲ Final Calc: the best product demonstration from AT has come on the Amiga in long time



▲ The Amiga 1234-IT is one of Giles Harwood's from Gordon Harwood most important Amiga developments for 1995.

been bought and looks solid, but will they continue with Amiga in the long term?

Amiga Technologies originally forecast that the CD32 would be on sale by Christmas. It's not. Well not by them anyway, although you can get old Commodore ones for a song at the moment. But they have announced a new CD-ROM dower – the Q-Drive. Originally due for sale around December, late January or February now looks more likely as it was still only in prototype stage while going to press. This has to be the way forward though.

Third party developers and retailers like Power Computing, Gordon Harwood's, Digite, HiSoft et al. are still committed to the market. With new products in development including updates to already superb software like *Wordworth* and *Final Writer*, 040 and 060 chips becoming the new standard for accelerator cards and new developments concerning CD-ROM and MPEG full motion video encoding, things are looking exciting. And on the horizon there's the PowerPC RISC.

We spoke to some leading figures in the Amiga industry and asked them what they thought of 1995 and their hopes for the future. Here's what they said.

Jonathan Anderson Amiga Technologies

Highlights of 1995: 'The most important one for most people must be that the Amiga is back! When you consider how long the buy-out went on for and what has been achieved since May 1995, I hope you will agree that we have not been sitting with our feet on the desk. Not only did we bring the Amiga back in record time, but we put the new Amiga Magic

pack together in record time. We are working closely with many third party hardware companies to expand the Amiga to its full potential. As you will appreciate, these things don't happen overnight and I would ask your readers to be patient.

Most important Amiga developments:

'Low cost accelerators and 24-bit graphics cards, *Final Calc* and *Virtual Karting*.'

'*Final Calc* is by far the best product I have seen on the Amiga in a long time. On the leisure side it is more difficult – *Virtual Karting* is excellent. However I would strongly urge your readers to call or write to the following companies: Acclaim, US Gold, Virgin, Gametek, Mindspace, Team 17, Ocean and ask what new titles they have planned for Amiga in 1996. If none, THEN DON'T BUY ANY OF THEIR SOFTWARE. You will only be funding PC CD-ROM and the Japanese console titles.

Predictions and hopes for 1996:

'Better quality software and more playability. The Amiga is still an excellent buy and personally I would like to see more serious software. I have been looking for software that appeals to females. Maybe your readers know or have seen something if they have, please let me know.

'Personally, I would like to see Amiga have software that appeals to all the family. Amiga magazines often assume their readers understand the jargon and lanky most mums and dads who write to me don't. They find coming in general both confusing and complex, would like to see 1996 change all that. Amiga will change in a big way over the next two years and I hope your readers will still be around to benefit from these changes. On

in with ...

behalf of all at Amiga Technologies, may we wish all your readers a peaceful and prosperous new year.

Giles Harwood

Gordon Herwood Computers

Highlights of 1995: "The biggest highlight has simply got to be the fact that Amigas are back on sale again after Amiga Technologies' acquisition of the former Commodore's assets and also that there are firm plans now set for the Amiga's future."

Most important Amiga Developments:

Blizzard 1230-IV, Squirrel, Final Calc

"We are particularly pleased to have launched the Blizzard 1230-IV, which is not only the first quality accelerator using a 'non-clocked' 68030 50MHz CPU to really break the £200 barrier, but also the first 030 that can be disabled from the keyboard on boot-up, eliminating the irritating need to remove the accelerator board before running some older software, games or many demos."

"The other product we feel has made a tremendous impact is the Squirrel SCSI interface. This has given those users who don't have an upgradable accelerator board the opportunity for the first time to gain the flexibility and benefits of SCSI, which users of the Mac have enjoyed for so long."

"We are pleased to see so much development of serious software having continued during the last 18 months when there has been so much uncertainty about the Amiga's future. In particular we are delighted to be now shipping *Final Calc*. We've had good word processors, *Wordward* and *Final Copy/Writer* for many years and good databases too. But for the first time on the Amiga, *Final Calc* offers spreadsheet power comparable with Excel and Lotus 123 on the PC and Mac."

Predictions and hopes for '96

"The year where that party hardware developers really will be able to offer vast performance increases to users of both 4000 and

1200 series Amigas - especially as the shortcomings of 68080 CPUs should finally ease allowing volume shipments of boards to start. This will go even further with the launch of PowerPC boards for the whole current Amiga range in the first half of 1996, apparently well ahead of Amiga Technologies' own targets for PowerPC systems of 'early 1997'."

Tony Ianiari

Power Computing

Highlights of 1995: "Amiga being restarted CD-ROMs and Squirrel devices. Better expansions for A1200/A4000 GVP being saved by us! The Amiga being used on The Krypton Factor!"

Most important Amiga developments:

"Squirrel, Fabon 68040, Breathless, Amnet CDs"

Predictions and hopes for '96: "We would like to see Escm starting to advance on TV and in PC mags. This would show Joe Public that there's an alternative to a PC, at a far cheaper price than £1000. If Escm put the piece down after Xmas this should even up the market, thus bringing up sales through the summer of '96 making everyone happy. Also software and hardware developers must continue to support the Amiga with good, easy to use products to keep all the different types of users happy so that they continue to invest in the Amiga. As for the Amiga market well, 'from small acorns, grow large strong oaks!'"

David Link

HiSoft Systems

Highlights of 1995: "Obviously, I have to nominate Escm's acquisition of the rights to the Amiga family as the highlight of the year because it gives us hope and support to all the loyal Amiga users and developers on this platform."

Most important Amiga developments: "Well, here's a surprise - the Squirrel SCSI interface! Seriously, this device has done more than any other product to open up the potential of the A1200 and A600 and has brought CD-ROMs, zip drives, fast hard drives, scanners etc. within the reach of everybody. This has encouraged CD developers to continue on the Amiga platform. 'PageStream 3 and Cinema 4D for this ease of use, together with their power features, both available on reasonably specified Amigas, offering high end DTP and say tracing to suit everyone's pocket.'"

Hopes and predictions for '96: "I would like to see more developers taking the Amiga seriously in 1996, more multimedia titles, more development of the A1200 as an entry level computer, more books on getting the most out of the Amiga, more sales of CU Amiga! And generally more optimism and more positive feeling towards what I consider to be a great home computer with a great future." ■

Time Frame

APRIL 1995: Escm Buys rights to Commodore and Amiga.

MAY 1995: Escm re-opens Rumbelows stores. Amiga Technologies formed in Germany. Petro Tyshchchenko confirmed as MD of new company.

JUNE 1995: AT try to start production rolling. Meetings with Solecron and audits done of Far Eastern stock.

JULY 1995: Deal signed with Solecron to produce Amiga. Amiga Technologies GmbH (UK) formed. Work is renewed on creating a killer software bundle.

AUGUST 1995: Amiga production line starts tooling up in Solecron's plant in Bordeaux.

SEPTEMBER 1995: Software pack is finally spread upon, first Amiga come off production line.

OCTOBER 1995: New Amiga A1200s go on sale in the UK. New Amiga 1438 monitor launched.

NOVEMBER 1995: Amiga Technologies announce new CD-ROM drive, Cologne Computer '95 should have been named Amiga '95, it was an Amiga show despite the presence of other formats. PowerPC announced as chip for next generation Amigas.

DECEMBER 1995: Christmas. Sales at this time of year will make or break the A1200 seed decide the fortunes of Amiga in the future.

JANUARY 1996: New Amiga CD-ROM drive (D-Drive) will be launched. HiSoft MPEG.

SPRING/SUMMER 1996: Mid range machines a possibility. As we reported back in July an A1300 (A1400 even?) may be on the cards with an 030 or 040 processor replacing the 020 in the standard A1200.

AUTUMN/CHRISTMAS 1996: New PowerPC RISC Amigas seen for the first time. Total overhaul of Workbench, 4.0 will be completely new, completely re-vamped.

1997: New Amigas on general release, but not backward compatible: for the first time in Amiga history. Emulation should solve the problem though.



Blizzard is the show that saw Power Computing making a break into the game market with a team close called Brezilian

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- 4 The object of the game is to reach the top first, following the numbers The winner is the player who does this
- 5 If you die three lands you on a square with a ladder then climb up to the square above where the ladder ends
- 6 If your dice shows a snake you go to a square with a snake then climb down to the square where the snake ends
- 7 If the square you land on tells you to go back to the start do so
- 8 Enjoy yourself and have a happy Christmas from all at DJ Arnie's Mozzino



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Christmas is traditionally a very good time for games software and although this year's releases doesn't match last years, it's still a good show. In our previews section you'll

see *Breathless*, a game that's knocked us off our seats. It arrived in right at the end of the schedule and we've held it back until next month so that time can be given to do it justice. As a *Doom* clone it's the only one on Amiga so far to actually look better than its PC counterparts. It's just so smooth. Granted you need the mother ell of accelerators to get it running full screen at full speed, but it shows it can be done. Will it play better than *Breed 3D* though?

I can honestly say that for almost the first time in history we hadn't a single duff game arrive in this month. From the much improved *ZeeWolf 2*, *Wild Justice* to the most excellent new tennis game from Audiogenic and a *SWOS* update worth shouting about - it's a wonder we got any work done at all. It's just as well *CD32 Worms* arrived on deadline day, any earlier and you might not have had a magazine to read this month.

On a less positive note I was disappointed to see and hear very little about games at the Cologne show in November. Although it was a triumph for all things technical, the software houses were much busier with other machines. Amiga Technologies really have to do something about this if we are to have a happy Christmas next year.

Alan Dykes, Editor



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Breathless

■ Due: December 1995 ■ Publisher: Power Computing © 01234 273000

I swore if I saw another Doom clone for the Amiga I'd throw it in the bin. However, like our fine Conservative government I've been forced to go back on my promises again ...

Not another one,' I said as Mat enthusiastically popped a disk on my desk with the promise of more Doom heaven. He had got a demo of *Breathless* off the net, and it looked wonderful (as we reported in last month's news). However there were no guns and the enemies didn't attack, so could it be like *Fears* all graphics and no gameplay?

Much later, one sunny afternoon in Bedford, Tony Ianish of Power Computing, whom we normally associate with technical products like the Viper range of RAM boards and Power CD-ROMs, announced that he had a game. It was called *Breathless* and, according to him, it was brilliant. Ha gamma me a demo and I



▲ This is where we leave you and next month's review.



▲ A line of bullets and the resultant unlit bodies. Will Power Computing be putting a rising stock on this game? I wonder? Well, check out these graphics again.

have to admit he was right. I loved it instantly.

The graphics engine is much better than those seen in any of the other Doom clones to date. Gorgeous, textured ray-traced graphics with four resolution settings: from 2X2 pixels to 1X1 pixel. The screen can also be re-sized several times to make it faster on low RAM or processor machines. It's the 1X1 pixel mode that has to be seen to be believed though. If you've seen the pictures in the news pages of the *Breed 3D* update disk and were impressed then look at the screenshots on these pages. *Breathless* already has it.

Granted you need a big, big accelerator in your A1200 to get it

going at this resolution in full screen mode. But, sad as I am, I was even happy with a tiny screen and full resolution rather than full screen and low resolution on my A1200. (Tony and Mat hog the accelerators and snub anything less than full screen modes.)

Adjusting the screen size and resolution is fast and easy during a game: all of the modes

being accessed using the numeric keypad.

Look up

The numeric keypad also allows you to look up or down with three degrees ('When Will I See You Again', oh yeah!) of adjustment in each plane. This is done using the keys 7 for up and 1 for down. And, the beauty of it all, is that it automatically centres you again, just in time for the perils ahead. Looking up and down is useful for several reasons: 1. you can shoot enemies on platforms and in pits and 2. you can target mini enemies that bit easier.

Mini enemies? Yes. The basic units of cannon fodder for the *Breathless* games engine are *Cresh Test Dummy*-like silver mannequins with mysterious hidden guns. But just to confuse your targeting they come in two sizes. Big mannequins and baby mannequins and they're both vicious. The other enemies we've encountered are skeletal Terminators and a Robocop-style ED209 clone. These guys need a little bit more firepower to down than their equivalents in, let's say, *Gloom*.

There is a red target sight in the middle of the screen to help you aim your weapon which, personally, I like. And, although the gun you start off with is weedy

enough to be called 'Dock Leaves' there are another five weapons available: my favourite of which is the no-holds barred 'Death Machine'. This reduced mannequins to tomato puree and leads to a terrific explosion in robot enemies.

Terminal

New weapons can be bought from terminals found on various levels. *Breathless* operates on a credits system and you have to buy everything. Credits, armour and health bonuses can be found on each level but you can also upgrade these at a terminal. Armour protects the protagonists and the higher its rating the less health will be lost in an engagement. Energy is the source of all life and death. Guns in *Breathless* use energy according to their power rating. The weedy gun uses little energy; the Death Machine uses a lot.

We received an almost finished version of *Breathless* just as we were going to press and lost an entire enjoyable evening playing it to bring you this preview. Which means we've got a whole month of examining and soul searching before we bring you a review. Will *Breathless* match up to *Alien Breed 3D*? Or will the king survive? ■

Alan Dykos



▲ A key. Bunches have realistic effects. Yes, indeed. In the way this is 1X1 pixel full screen mode.



▲ A key. Bunches have realistic effects. Yes, indeed. In the way this is 1X1 pixel full screen mode.

Gloom Deluxe

■ Due Out: January ■ Publisher: Guildhall Leisure 01302 890000

Those cocky folks at Black Magic are too kind. They've thought up an ingenious plan to help us poor overworked journalists have a sneaky game of *Gloom* on our Amigas when we're supposed to be working on something else.

Gloom Deluxe, a souped-up version of *Gloom*, will now run on any Amiga that has a 68020 processor and 2Mb of RAM. It will also run in a window on your Workbench if you have a 24-bit graphics board which means that we can sneakily play it to our heart's content while no-one is looking. And if anyone happens to pass by we can casually switch back to what we were supposed to be doing leaving *Gloom* running in the background. Very clever.



Of course not everyone is as work-shy minded as us at CU Amiga, some of you might just want to play *Gloom Deluxe* for the improved graphics as it will now support VGA and EGS and hopefully will also be i-glass compatible.

The preview copy we received showed a marked improvement in graphic quality compared to *Gloom*. Now that you are not limited



to the blocky standard display you can view the game in full-screen high-resolution.

The playability also seems to be a bit harder. The first level which is incredibly easy in *Gloom* is not so easy in the *Deluxe* version. The sprites must have gone to 'sprite training school' or

something because these now seems to be more of them and they are quicker and tougher.

The gameplay has been altered slightly as well. Doors no longer open if you walk up to them, you have to propel yourself first against lots of monster-like walls that have strange flashing lights on them. Sounds like

one of Tony Hogan's nights out. Finally, the only other main

and the original is that there are some new levels planned: Spacehulk 2, Aztec and Egyptian. Expect to see a review soon. ■

Lisa Collins

XTreme Racing

■ Due Out: TBA ■ Publisher: Guildhall Leisure 01302 890000

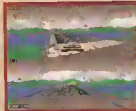
Running people over is not my idea of fun. However, play *XTreme Racing*, an excellent new racing game from Sitrona, for any length of time and you soon find yourself mowing down the trackside spectators with no scruples whatsoever.

We seem to have been blessed with good racing games lately. *Leading Lap* and the recently budget release *F1* spring to mind. So where will *XTreme* fit in amongst the plethora of Amiga racing games? Mat Bettinson described it as '*Lemmings* meets *Mario Kart*'. He's right. *XTreme* is not really in the *F1* mode and if the finished



version stays in the same vein it will be a mixture of the best bits from OTM's *Virtual Karting* and Grandslam's *Bump N Burn*.

There are lots of items around the tracks to avoid and run over. And, speaking of *Lemmings*, there are a few suspicious-looking little creatures running around the dome waiting to be mowed down and we're not quite



sure Psychosis (Sony) would really appreciate it. But we didn't tell you this. We have not

seen anything.

Sitrona's (er, has it struck you that this is a strange name?) Alex Amsel and Mick Fitt seem to have to put a lot of work into the game. A major bonus is the ability to run it on serial link with up to eight players being able to

compete at once.

We were all very impressed by what we received. It's looking good so far, it runs smoothly and the corner handling is good. The only criticism I have is that your car looks a bit like it's been superim-

posed on the track rather than actually being on it. We'll have to wait and see how the finished version turns out. We should have a full review next month. ■

Lisa Collins



Zeewolf 2

WILD JUSTICE

■ Due Out: December

■ Publisher: Binary Asylum ☎ 01225 428 494



One of our favourite helicopter sims is back again. If mowing grass and bad guys is your idea of a good time the second instalment of Zeewolf should titillate your fire button fingers.



▲ This is one of the newly added options. Link up to the Camel and you will be able to fly the Kestrel fighter

The old saying "if it ain't broke, don't fix it" must figure quite highly in Binary Asylum's vocabulary. The boys from Bath sat back, looked at their first creation, scratched their heads and decided that it was just too damn good to change. So they sat about making a couple of improvements and a whole new set of missions.

The theme of the original was a polygon helicopter sim with as much flight realism as possible. Version one's biggest competitor was *Jungle Strike*, and the game-play similarities were striking – even if the look was different. But that was then and this is now, and EA haven't bothered to bring us the third version of their popular gunship shoot 'em up so *Zeewolf* looks as though will be the king this Christmas.

New objects

The changes are noticeable, though they don't exactly set the world on fire. They are most



▲ Stranded reinforcements of Desert Strike. Pick up the bounty, blow up the oil derricks and earn more cash. Check out the new new colours.

apparent in the landscapes. New objects appear everywhere, and the land itself changes colour from time to time. There is a much bigger variety of buildings than the original. And as usual you can blow each one of them up. Violence is the keyword.

According to project leader Trenton Waldo "One of the criticisms of the original was that there just wasn't enough variety, so we sat out to create more complex and varied structures". Indeed "Look at the trees", he said. Rounded deciduous ones have joined the endless conifers.

The on-screen interface has improved too. The local area map remains on the top left hand side of the screen and the gun camera on the top right but they have been incorporated into a sort of metallic console instead of floating around like the old version. The fuel and Armour gauges are now coloured and look more like real gauges than little retracting pieces of purple paste. The centre of the console tells you how much ammo you have, how many lives you have, how much money you have in the bank and how many friendlies you have rescued.

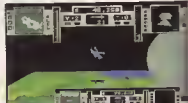
Mowing grass

And yes, *Zeewolf 2* still allows one to mow grass with the rotors.

For those unfamiliar with the original, the control technique of trying to get the chopper to move forward at speed also means that as speed builds up your 'copter goes down. This is apparently because as the rotors are angled really far forward to increase

speed, you tend to lose lift. This was one of my criticisms of the original. This tended to get annoying. According to Trenton "we've made the game much more forgiving. Yes, you can crash into the ground while speeding, but you don't lose too much ammo doing so". But it's a not very realistic this way. I claimed "But it is a very playable this way" replied Trenton. Fair point.

Using the mouse is, once again, a barrel of laughs. I regret to say that one year down the line from *Zeewolf* I'm still no closer to mastering this control method. "I'm a big chap with big hands (ladies out there take note) and consequently I have real difficulty making the minute

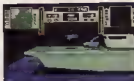


▲ Another couple of excited customers delivered to the carrier. You will get armour as a reward.

movements required of mouse control, especially when things get really busy on-screen. This is when you need a joystick to yank around, not fuff about with a namby pamby mouse.

Binary Asylum and an old

Get Thee To The Carrier



The Aircraft carrier is very valuable in later stages of the game. You will need to refuel the arm and have your shields replenished here. Shields are replenished at the back of the carrier on the 'X' landing pad. By picking up technicians from destroyed buildings and dropping them off here you will automatically receive more armour. The more techs you rescue the more armour. If you lose a life with Techs on board you will lose them too. To replenish weapons and fuel you will first have to destroy some Ecliptic gear. Because you are a mercenary this will give you money and if you then land on the Diamond marker at the front of the carrier a Camel will link up to you and allow weapon selections to be made. Doing this will automatically refuel the Zeewolf.

Some Enemies To Watch Out For ...

The Albetrass



A heavily armoured chopper with a destructive cannon. Very, very effective in pairs.

The Weap



A small, lightly armoured scout helicopter with a rather weedy little gun. Annoying.

The Osprey



A VTOL attack aircraft with homing missiles. Ospreys fly specific patrol patterns.

The Destroyer



A massive ship with big, fast guns. Steer clear if you're low on armour. Best attacked with missiles.

The Shark



Seems a little wimpy by comparison with the rest, but these still cause trouble.

Watchdog



This annoying tank is equipped with a radar which is used to guide other weapons.



▲ It's best to destroy enemy aircraft on the ground if you can. If they take off leaving missiles are the best option, though these Weaps can be easily shot down with some.

▲ Enemy threat fighters in their target and they'll make you pay for that much sooner.

you'll understand why Speed. In fact this is another area where this new version has improved. Zeewolf had the annoying habit of slowing down to a snail's pace every time you pressed the fire button. On A1200s without fast RAM or an accelerator this was noticeable, especially when there were a lot of objects on screen. But not too much to the detriment of gameplay. On A5000s and A6000s it was dreadful. If you've tried to pull away from a set of traffic lights in third gear in your mum's A-reg Fiesta you'll have some idea of the sort-of noisy stop-start get nowhere feeling in Zeewolf.

Wild Justice has partially rectified this problem. It's now more than acceptable on a standard A1200 and a bit more reasonable on lower spec machines. The problem remains though that if you

have a basic A500 or A600 you'll have problems on later levels. Once the screen gets heavily populated and there is a lot of gunfire 1Mb and a 7MHz processor just can't hack it. Fast RAM helps though, on all machines. Speaking of which, if you have an A800 and feel left out of the upgrade stakes then check out the A620 review on page 79. We tested Zeewolf 2 with it and it was almost twice as fast as an A1200!

Missions

Once again the variety of missions is excellent and as with Zeewolf 1 the Binary Boys have given us a nice, healthy learning curve. The first few missions get you used to the controls then, after mission five, things begin to get difficult again.

While looking at a preview version of the game I mistakenly told Trenton at Binary Asylum that I thought that there ought to be more intense concentrations of accurate enemy to deal with. He gave me a knowing smile, shook his finger and said, simply, 'Yes Alen'.

REASONABLE PRICES

My much better than the old Zeewolf. The collection is good to the old Zeewolf. The old Zeewolf is a bit better than the old Zeewolf. The old Zeewolf is a bit better than the old Zeewolf.



▲ (Above) Alen to re-load guns, introduce and remove. The first few levels do not require this but later ones may require more than one visit to this safe house. (Top) A nice mission description.

associate from another magazine have assured me that mouse control is indeed the best way to play. Whatever. What I will say about control is that if you have played our demo and were disappointed with your performance then try again. Aiming the proper takes some getting used to even with joystick control, but does look realistic when you get it right.

New colours

There are lots of new landscape colours in Zeewolf 2. Wild Justice. If you didn't like green pastures then Zeewolf would have bored you to death, but the Binary Boys have obviously been paying Cannon Fodder or something because green grass, snow white, desert yellow and fashionable grey have been included. The sky is still black, but when you look at the rest of the polygon populated screen

I made a fool of myself by suggesting that it was too easy, as later levels have shown. The variety of enemies is amazing at any one time you can be assailed by as many as five or six in the same area. And again there is a whole menagerie of animal names for the land, sea and air-craft. Big, mobile anti-aircraft guns are called Rhinos, The Albetrass is an Ecliptico helicopter from hell and an Osprey is an enemy STOL jet.

Enemy weapons are better, but Zenith have a few aces up their sleeve too. As well as flying escort missions for planes with improved AI you can also connect to remote control vehicles like the tank in this month's demo and a Kestrel attack aircraft. These are sort of 'trash-and-forget' weapons. Once connected to one you can fly or drive around causing as much mayhem as possible and if you get knocked out you simply return to the unharmed Zeewolf.

Zeewolf 2 - Wild Justice is better than the original, there is no doubt about it. Last year a combination of factors led to Zeewolf 1 being rated 84%. The differences here have changed my opinion, although with a slower machine it would still be advisable to try our demo out before you make a purchase. I, however, will be playing it on Christmas day. ■

Alen Dykes

ZEEWOLF 2

- workbench version 1.3+
- number of disks 1
- RAM 1Mb
- hard disk installable No

GRAPHICS	98%
SOUND	92%
PLAYABILITY	90%
VALUE FOR MONEY	98%

OVERALL
Number two is
more polished
and excellent.

90

Sensible World of Soccer 95/96

■ Price: £24.99 ■ Publisher: Warner 0171 391 4300

The best football game ever...
basted? Shurley shome mishtaka.
CU Amiga's Sensi pilgrim investigates.

When I'm not sitting by the phone waiting for Commander Dykes to call with my next top secret CU assignment, I lead a second life. In between each Amiga games release (i.e. those occasional two month breaks - watch it Broughton - Ed) I muck about with Sony PlayStations for another of EMAP's magazines. Now even though you may have seen these 'wonder machines' on various games programmes and in magazines over the last few months, for all its incredible polygon manipulation and breath-taking 3D, it still has yet to produce a product to impress me more than that all-time classic - *Sensible Soccer*.

When *SWOS* first appeared, even it took a while to really step ahead of the original *Sensi* as far as we were concerned. This was partly because of loyalty, but mostly because, when you get a game that's very close to something you know so well and yet contains so many changes, it's hard to accept and adapt. Of course we did in the end, and *SWOS* became the standard version of the game, but then along comes this 95/96 business. Not only does it feature the updated



▲ A striker with HTS after his name means that he excels at heading, finishing and shooting - just the job.

team line-ups that we've all been gagging for, but also changes to the actual arcade section of the game. This, as any *Sensi* fan will tell you, is an incredible dangerous thing to do. Fortunately, the way these new features have been slot ted into the existing game makes it a 'take it or leave it' affair.

The big match

So you've loaded up the game. What's changed? Well, apart from a gorgeous new purple background there's nothing that particularly catches your eye. Until, that is, you select a national team for a quick friendly, and MY GOD, IT'S FULL OF STARS! Yes, gone are those lifeless team selections, replaced with a star rating system not unlike those used in the *Premier Manager* games. It's hard to say how accurate these ratings are because, fairly obviously, being in the national team, all of the players are of a high calibre anyway. Gosza gets five stars, but it's still mostly down to your skills on-pitch as to whether he'll score every time



▲ A particularly helpful new feature is the ability to tag players so you know who they are at all times.

And it's easy to tell who's scored now, thanks to the name of the player currently on the ball being displayed above the time display. This also helps when you find some super-fast player against you and want to know who it is in readiness for approaching the transfer market.

Another helpful new feature includes being able to 'tag' players with a h-lighting diamond during play. This means that, should you fancy, say, Ian Wright, you can tag him and then watch an Arsenal game, safe in the knowledge that you'll know which player he is at all times. Ah, but now I'm getting into the management side of the game and that's where things really have changed.

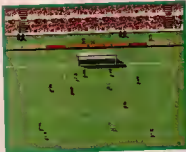
Each player (apart from having been updated to their new clubs with their new fees) carries three specialist statistics. A striker showing the letters HSF is particularly proficient at Heading, Shooting, and Finishing. This also

helps when scouting players, as you know whether you're getting an accurate passer with good control and speed (PBV) or one more likely to win tackles and headers and then have a crack up the field (HTS). This is very helpful when trying to build a well-rounded side.

Another new feature is the inclusion of brand new final players



▲ The guys in this updated version are much tougher and slower than the earlier version.



▲ In this new updated version the crowd now keeps around scoring scores and pumps us and down - the usual football supporter type stuff.





A. Showing headers are another set feature which makes the game more realistic and enjoyable



centre spot waving their arms enthusiastically, and at the end of an important match

and reserves. You can even create entire 'B' reserve team that can be used to train new comers in friendlies against your A team (and B A, and Pece aren't in it.)

Nitty gritty

said and done, though, none of this matters unless you can still play the game and I know you're desperate to know how that's changed. Well, as soon as you get the pitch you can see a few differences. The crowd now animates, waving scarfs, and jumping and down, and there's also the aforementioned player names in the top left corner. After a goal the scoring team run back to the

(such as semi-finals) the teams stand in celebratory circles or flop into disappointed heaps depending on their point of view. Oh yes, and the advertising boards rotate in a realistic fashion. Hurrah

And so we come to the match itself. Well everything is fine and groovy, apart from the fact that, if I'm not very much mistaken, the CPU logic has been tweaked, and these teams DO NOT play like the old guys! They are tough and clever. Approach for a tackle and they'll happily play it right back up the field to make a stronger attack. Scary stuff indeed.

After touch is now available

stand still to collect the ball. Both of these seem very subtle changes but once incorporated into your usual play, are tasty extras.

The only other major feature to tell you about is the new standing headers. This basically means that you can get players to jump up to the ball and then direct (with the joystick) the



A. Taking control of Arsenal Matt Broughton differentiates your kit team

header in the desired direction. This isn't always easy to execute in frenzied play, but it avoids committing players to valuable seconds face down in the mud should they miss.

And there we have it — an excellent update indeed. One can't help but feel that perhaps the original SWOS should have been this polished first time round, but considering most people will want this if only for the updated teams, I won't harp on about bugs and such. It doesn't dramatically overshadow the original, but it's still the best football game around. ■

Matt Broughton

SWOS 95/96

1600	■ watchmen version.....1.3+
1600	■ number of disks.....2
1600	■ RAM.....1Mb
1600	■ hard disk installable.....No
81200	■ speed.....0.0%
81200	■ size.....0.0%
81200	■ type.....0.0%
81200	■ version.....0.0%
81200	■ still the best football game ever!
81200	94%



Super Tennis Champions

■ Price: £24.99 ■ Publisher: Audiogenic ☎ 0181 424 2244

Tennis games have had a sort of hiatus on Amiga, so the time is right for something new. Enter Loonysoft, or Madware, or something ...

We share an office with a bunch of lovable misfits called Nintendo Magazine System. Normally they stick to their toys and we stick to real computers but one day while yours truly was playing this game an NMS bod approached. "Oy, is that *Smash Tennis*?" he said. Nope. It's *Super Tennis Champions*, though at first glimpse you'd be forgiven for asking the question.

Some time ago a Super Nintendo game called *Smash Tennis* (produced by Namco and known in Japan as Super Family Tennis) was all the rage, interrupting work on both NMS and our own mag as matches were arranged and reputations were raised and thrashed. I'm not sure if this was what the developers,

Merital Software, intended but the similarities are striking, and since *Smash* was a superb game this is not a bad thing.

Super Tennis Champions has all the usual options as far as tennis games go: you can choose players, choose type of surface (hard, grass, clay), choose between singles or doubles play, the amount of sets and between friendly or championship matches. The latter allows you to enter singles or doubles leagues, a singles tournament in either Australia, the UK, the USA or France or a Grand Slam which takes you on a circuitous tour of the world's tournaments.

Four ...

One of the features we really liked about *Sensei Golf* was that you could invite lots of friends around for a tournament and, with up to 16 players allowed in the singles tournament, *Super Tennis Champions* has the same advantage. In fact up to four humans can play at the same time! You can also save out a league or tournament so that new rankings can be recorded and you can go back to beating the hell out of your friends at a later date.

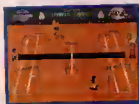
Four player mode is only possibly needless to say, in doubles play and with a parallel port joystick adaptor. Ours has mysteriously disappeared (jumped off the edge of a cliff for lack of support most likely), so we weren't able to test this feature, but there's no reason why it should be anything less than a real hoot.

Super Tennis Champions allows you to choose from 16 characters on a first name basis. Each character has strengths and weak-

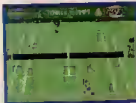


Love ...

Little animation touches like players skidding to a halt at cartoon-style angles and very convincing serving stances add character to *Super Tennis Champions*. However, while the 'celebration' animation (when a point is won) is very good, what's supposed to pass as 'throwing a tantrum' when one loses a point is very poor. This involves the player hunching up and shaking their tennis racket.



▲ There are grass, clay and hard courts to choose from; each with their own characteristics.



▲ Speed demonstrates the naming sequence. Nice looking, good font placement, nice draw ...

Just Some Of The Characters





A. Although you can choose from five locations for a comment, I'm sticking to snaf! Lamest snaf!



A. Not all computer players are effective. Best job! (the Mexican cat) has a tendency to double fault.

would have involved jumping up and down at least and probably a few finger salutes to sound things out. Indeed, having added these two animations in the first place it would have been nice for Thermal Software to give us a bit more variety. But I'm really clutching my straws here, just to play the game's advocate, because the overall standard of animation is fine.

The scrolling that exists in *Super Tennis Champions* is there to make the game a bit more animated and TV commentary-style movement. This can be turned off should the court remains static otherwise it runs in fast or slow modes. I favour slow.

Sound is impressive too, with a nice little theme tune and excellent if sparse, crowd, linesmen and beeper samples.

Development versions of *Super Tennis Champions* had irksome disk swapping procedures and what seemed like a phenomenal amount of waiting time before anything would happen. Now it's been squeezed onto a single disk for release these problems have been solved.

Game, set ...

To say we liked *Super Tennis Champions* here in the office would be understating things. We loved it. Competition got fierce for a few days but we ended up with an unexpected thrash the lot of us - our designer Anthony Collins. Both one and two player modes are brilliant fun and the fact that you have the choice of one, two or six button control in this game is

a very good reason to upgrade to a joystick means that precise control can be gained over the various types of shot. Shots can be lobbed and include topspin and slices.

Serving is another area where *Super Tennis Champions* comes into its own, with the option of Pro or Easy serves. If you select Easy serves then a target will appear showing you where you are aiming. All you have to do is press the fire button twice to throw and hit the ball. In Pro mode it's up to you to aim and curve the ball wherever you can. This can be difficult at first, but soon becomes second nature, dinking shots becoming easy.

Super Tennis Champions does have its annoying let downs. Although player characteristics can be tuned off, some of them are a bit dull. I don't mind missing shots because I read the game the wrong way. I don't mind hitting the net because I didn't put enough height into the shot, it's just that the players seem to be too slow. This wouldn't be a problem if you could dive for shots or hit them on the run like *Smash Tennis*. Even with all the accuracy problems these options would cause I would prefer to have a

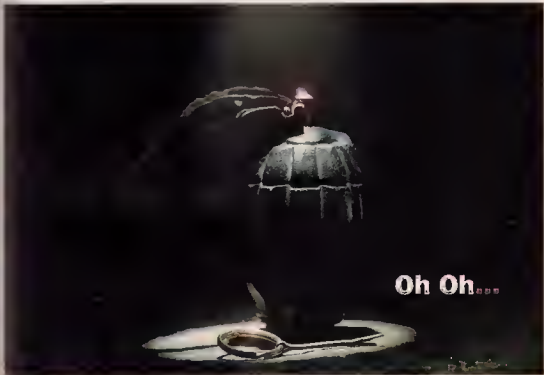
wild go, rather than just fail to reach the right spot and hit the ball. Half of the excitement is in trying and since this game obviously has a cartoon element and a sense of humour these features would have added extra oomph.

Gripes aside it's the only new tennis game available at the moment, it's great fun and highly addictive. But we'll save the last words for our champ, Anthony. "After initial control problems with the pro serve, my biggest worry was finding someone who could give me a good game, other than Synax and the computer". The big headed git. ■

Alan Dykes

SUPER TENNIS CHAMPIONS

AA00	hardcore realism	100%
AA00	number of disks	1
AA00	RAM	100%
AA00	hard disk installable	No
AA00	graphics	68%
AA00	sound	84%
AA00	stability	91%
AA00	playability	85%
AA00	overall	85%
AA00	Great Instability	85%
AA00	quirks	85%
AA00	minor frustrations	85%



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Worms

■ Price: £29.99 ■ Publisher: Team 17 ☎ 01924 267 776



The worm has indeed turned. Here we have a CD32 game that's better than its Amiga cousin. Lights camera action ...

If you were wondering where we got lost having rendered Norm for our cover then you need look no further than this CD32 version. At the beginning of the game one standard and one random animation from Team 17's twelve mini cartoons appears. They are all excellent.

CD Heaven

There is something extra for CD32 owners, but what else is there? Well, you also get more music than the disk based version and, if you wish, you can play your own music now! Well, if you have a CD player and a selection of CDs then you're business. Instead of listening to the 10 tracks supplied with *Worms* you can access a music screen via the weapons options menu. If you

click on Change CD1 you can insert one of your own discs and *Worms* will begin playing it in order or randomly as each new game begins.

You can demolish your friends to the triumphant sound of Wagner's Ride Of The Valkyries or play a jungle level accompanied by Guns 'N' Roses. Even better, when a friend demands that you play their CD you can have it 'Wormed Up', which doubles its speed, making even Metallica sound like the Smurfs.

In terms of gameplay there is no real difference, except of course that the CD32 has its own controller. There's no substitute for mouse control but after Intel grumbles I became used to the six button pad. Where it loses out in terms of convenience moving

the pointer around the screen it almost makes up in terms of the accessibility of functions through its four buttons and two flippers.

No mouse?

You still can't beat mouse control though, so if you have an SX1 CD32 expansion you can plug in your PC keyboard, start the game up as normal (which involves letting the CD32 startup sequence finish before inserting the disk) then, using the joystick to start things off, enter the options menu and select mouse and keyboard control. This works just fine and it doesn't say anything about it in the manual! Beware though, if you have a mouse but no SX1, which means you can't plug in a keyboard, you can forget about this option. Mouse control is not possible even though it can be selected.

We tried running it on a Power CD-ROM drive and an A1200 and although the animations work and you can go through the copy protection screen it eventually crashed. The box claims that it will work with a CD32 compatible CD-ROM drive but this depends on the type of CD32 emulation software you have. Ask your dealer for details before you buy *Worms* with a view to running it on one of the many CD-ROM drives available.



Worms is a superb yet simple game concept which invites competition between as many human players as you can get your hands on. It's available on almost every format and the CD32 version is one of the best. Its only real problem is that the cheesy copy protection of the A1200 version with its little black book of 5950 codes is still there. This is because you can copy it off the CD onto a hard drive. CD32 owners shouldn't be penalised with a protection routine that isn't necessary for their machines. It spoils the convenience of the format. But luckily nothing could spoil this game! ■

Alien Dykes

WORMS

Team 17

CD32

Graphics: 92%
Sound: 85%
Playability: 85%
Overall: 88%

95%

A wonderful CD32 game.

Alien Breed 3D

■ Price: £24.99 ■ Publisher: Team 17 ☎ 01924 267776

The wonderful thing about the CD32 when it was launched was that it was essentially an A1200 one without a keyboard but with the advantage of having a CD-ROM drive and a multi-button joystick. It was launched as a games console to compete with Sega and Nintendo and could have been a contender but didn't quite make it. Why? Commodore should have looked at the PC market for guidance rather than the console one.

Original or converted games have to be completely re-programmed to be released on

Nintendo or Sega. In the process of doing this they are invariably optimised for those formats and end up looking and playing well. The lesson that could have been gleaned from the PC market is that in the early days of CD-ROM on that format most of the output was shovelware. This means that some-one programmed software for disk based PCs and rather than updating it to use the CD-ROM's potential, they just ported the standard PC game across and sold it thus.

And so the CD32 fell victim to the same disease. Very few games owners took the time to give CD32 owners something more, some-

thing they surely deserve. Team 17 did so with *Tower Assault*: they gave us a full motion intro and included *Alien Breed 2*. They also did it with *Worms*: there's a lovely intro and cut scenes. So imagine my disappointment when *Alien Breed 3D* arrived in the office so obviously ported without any major changes.

I gave it 93% in our September issue! It was the best of the *Doom* clones at that time due to its superb, suspenseful and difficult playability. It was also the blockiest and least graphically convincing but especially with an accelerator, it was damn playable, more so in two-player mode. It was brilliant.

But time has moved on and so have *Doom* clones. *Breed 3D* has some problems: a) very few people with a CD32 will have a serial link cable, or are likely to want one, b) you can't put an accelerator into a CD32 and c) they've left the awful



copy protection at the beginning which is a pain in the behind and unnecessary. Sorry, Team 17, I'm going right off it.

On a positive note it is A1200 CD-ROM compatible so items a) and b) of the above complaints are solved and you won't have any disk swapping headaches, but I can't help feeling cheated with something that could have been different and enhanced on CD32. **AD**

86



Gloom

■ Price: £24.99 ■ Publisher: Guildhall Leisure ☎ 01302 890000

If I was disappointed with *Breed 3D* it's mainly because I expected more from Team 17. No disrespect to Black Magic or Guildhall, but I didn't expect anything new or fancy in terms of an update by them and so remained nonplussed when I stuck the disc in my CD32 and discovered it isn't any different. Because all of *Gloom's*

re-sizing options are available through pressing the pause button and selecting from a menu you can make the speed acceptable. And, with my console head on as opposed to my Amiga one, I have to admit that the less suspenseful but more frantic shoot 'em up style of this game is more suited to the CD32.

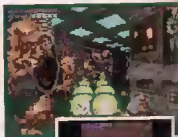
Gloom, by Mark Sibly, one of the Acid team responsible for quality titles like *Skydmarks* and *Guardian* was the first of the *Doom* clones to hit our shores late this summer. An instant favourite it scored 90% on standard Amiga 1200.

Unlike *Breed 3D* or *Doom* itself you do not pick up shotguns, miniguns, bazookas and the like, the sole weapon is a laser blaster and you can

upgrade it by picking up bouncing balls of energy. The idea is to collect these to make your weapon more powerful and you can boost it into a mega weapon for a short period of time or get a twin barralled version.

The enemies which include marines, ghosts and skinheads come on fast and furious and can be immensely difficult to overcome. Luckily they aren't too smart so you can usually retreat out of trouble, regain your composure and change your undies before returning to the fray... unless they are ghosts, who will follow you through walls.

With other useful pick-ups and reasonable graphics and speed this is the best *Doom* clone to



get for your CD32 at the moment. Still as I said in the *AB3D* review, you're not getting the sort of software your machine is capable of supporting. **AD**

88



The largest and most highly praised collection of high quality DTP & DTV PD & Shareware in AMIGA history!

We have seen almost every Amiga CD title in existence and only the general trend appears to be "shovel as much data on as possible and to hell with the quality!" The majority of these CDs are also developed as multi-platform CDs and while this may be advantageous for the company selling them, the end user is faced with a CD containing a high proportion of files that he probably can't even use. So what is left? A CD containing loads of badly organised directories filled with low quality (in some cases even pixelated) graphics. Being a little disappointed, the user then looks in the first directories and finds a massive link on his hands. He has hundreds of icons that are probably duplicated many times and so way of knowing what he's got! The poor end user is then literally faced with an endless sea of individual icons into an application, just to see what fonts he is actually got! If that wasn't bad enough, he then quite possibly discovers that most of the fonts have missing and/or corrupt files!

Some of these "so called" CD developers even get away with "shovelling" data from their old CDs onto new ones and releasing the new CD as "Professional". We could go on and on and on, but why bore you with everything you already know? We presently feel that the current vantage point and we at EMC are starting to set the standard on which all data CDs on the Amiga will be judged. A big thank you to you! Well, here's a brief insight to what is included on the EMC CDs and how the data is organised.

Firstly, three CDs are issued directly at Amiga users, and are not designed for multi-platform computers use. This means that you do not get CDs loaded with PC files that you cannot use! To add to this rapid location of files, clipart and image data, each of the 3 CDs contains 100 low preview screens for every font directory (in fact, you merely click on the preview icon to see the font!) The clipart and preview directories have been fully sorted and all previous versions (where applicable) are included in the same directory. Purchasers of the CDs will also have the option to buy a typesface book, published especially for the EMC CDs, containing font previews!

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VFM

F1

Publisher: Powerplus

Price: £14.99

Formula 1 keeps millions of fans happy every Sunday afternoon with a combination of glamour, death-defying excitement and the usual diatribes of the man they call Murray Walker. Murray speaks like one who records their commentary onto an LP while suffering from a bad head cold and then plays it back at 85rpm. No other commentator can convey the same sense of barely controlled lunacy that Murray puts into his work.

I'm not that big a fan of computer racing games. Round and round a track untold times is not really my cup of tea and I've avoided playing one for ages until *Leading Lap* came

along. It just so happened that *F1* was the last one I played (on Amiga anyway and discounting games like *Skidmarks* and *Powerdrive*) so many of my *L1* comparisons were made from the memory of this game. Then, lo and behold, *F1* arrived back on the Powerplus budget label for a measly £14.99 a week after we went to press with the last issue.

Although graphically it's more primitive than *Leading Lap*, speed-wise its genuine rock 'n' roll. Even in two player split screen mode it gives you a run for your money – and that's on an A800. Give it an A1200 and you're driving faster than Damon Hill with a slapus up his bum (which isn't a bad thought,



Top racing has at last £14.99, a bang.

the sour-faced grt). Flying off the track is a hoot too and unfortunately easy to do. That said it's not a very difficult game to play but the opposition, including Berger, Prost and all always seem to be a damn sight better than me.

My one big criticism of *F1* is the fact that in the quest for realism its tracks are over long and a tad boring. Too many opportunities for banging into walls, bridges and other trackside obstacles for my liking. After lap five or so you can easily get distracted – all it takes is one sip of tea and a one second lapse of concentration and you're

bouncing off something and relegated to fifth place.

Made in 1993 and featuring that season's tracks and drivers *F1* is a little bit outdated now but it's also £14.99 which is more than reasonable compensation for this. If *Leading Lap* is out of your budget and you want a genuine *F1* licence game then you should like this. Now all you have to do is record Murray Walker and play him back for that ultimate realism.

AD

85 %

UFO Enemy Unknown

Publisher: Powerplus

Price: £17

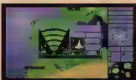
For some reason strategy games have never really captured my imagination. To be they always seemed to be very very tedious and way too tedious. However I took one look at *UFO's* manual and began to get excited. A couple of hours later I soon realised how addictive *UFO* is.

The plot of *UFO* is pretty

basic: increased UFO sightings, human experimentation, and odd abductions cause a lot of public concern around the world. Bowing to public pressure the governments of the world decide to form an organisation called XCOM (similar to the UN apart from the fact that they have a purpose).

Your job is to seek and destroy the Aliens. If you think that sounds simple think again, not only do you have to find the UFOs,

UFO releases every weapon secrets



you have to intercept and shoot them down. After that you have to send in a squad of commandos to find the crashed ship and finish off the hostile little green men. This gives you the chance to perform outpurses on aliens such as the imaginatively titled *snakeman*.

What I like most about *UFO* is that you have total control over everything from base locations to finance. I also like the fact that *UFO* has plenty of little touches like morale loss which results in your soldier having a panic attack and running away which is very helpful in the middle of a battle. Not! Also you can build Psi Labs which allow you to train your XCOM soldiers in the art of telepathy and protects you from any

psionic assaults (all this game needs is two FBI agents and it could be been called *X Files*).

It is essential to keep *UFO's* manual at your side at all times, this game is just so big that it's impossible to remember all the instructions in one sitting.

Patience is the key with *UFO*, on my first go two aliens single handedly wiped out all half of my squadron leaving me with the heroic task of running away and leaving the other half behind (sorry lads).

Graphics and sound wise it's fairly basic but who cares, with playability this good you will soon forget the need for all those fancy graphics currently in vogue with CD-ROMs.

This an excellent game which will appeal to anyone who likes a little bit of intergalactic warfare and which involves a bit of thought instead of your usual mindless blasting.

JJ

89 %



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temptress is still
going to bite you
where it hurts.
Trouble is, you
just can't help
thinking that it
might be worth it!

Secret of Monkey Island 2

at the grave of Misco Largo
side but I have nothing to dig
with. Is there a spade? If
where is it? Or is this a trick to
use people?

North Armstrong, Dudley.

and it confused you easily enough.
though I have heard people say that
daria's take too much to confuse
me. Put you in a dustbin and tell you
and in the corner, and you'll soon
be very dizzy. Take another look at
to sign on the bridge. That isn't a
showing of a spade you know, it's the
my thing.

Leisure Suit Larry 2

I'm stuck in my seat on the plane.
I get up because of the
wardens keeps blocking the
but I'll stay in my seat Ken
fore kids ma.

Sadie, Wallasey.

When you board the plane there is a
pamphlet you can pick up
the counter where the clerk
your ticket. Give this pamphlet
the boring passenger and you'll be
to get up. Remember before you

Adventure Helpline

leave your seat, pick up the sack bag
which is nearby.

Indiana Jones and the Last Crusade

I'm stuck in the catacombs. What
do you do in the pool of water?
Plus how do I get to the casket?
Please help. I'm getting nowhere

Richard Huckay, Chalfont.

I would have thought that everyone
knows only too well what makes do in
pools of water; which accounts for the
fact that I never drink the stuff. And
what's so bad about being stuck in the
catacombs? I've been hanging around
(mostly upside down) in catacombs
for as long as I can remember. The
trick here is to find the exit from the
catacombs which is located some-
where in the top right-hand corner of
the map. You'll appear outside in a
place. Find the two lovers drinking
wine. Examine the bottle, then tell the
two lovebirds that the wine is a lousy
vintage. Then you'll be able to take
the bottle. Fill the bottle from the pool
and use it to loosen the mud which
holds the flaming torch in place on
the catacomb wall. Pull the torch.
You'll also need to grab the hook
from the dead pirate's skeleton.

Might and Magic II

I've been playing this game on
and off for several years now and
although I believe there is a book
containing hints I cannot find any
reference to it. In fact I'm not
even sure that New World
Computing Inc. exists any longer.
Although, I'm sure that I read
somewhere that *Might and
Magic III* was available.

I have the Nature's Gate Spell
[Cleric Level 2] but when I try to
cast it it doesn't seem to have
any effect. It is supposed to
open a portal between different
time zones and according to the
manual time travel makes up

some of the game. Obviously
Vamp, if this question is beyond
your knowledge then perhaps
you could open it up to all of
your readers

Alan Smith, Doncaster.

I don't know if *New World* is still in
business, but they certainly did write
M&M III and it was called *Isles of
Terra*. I don't know if they wrote a
hint book for *M&M II*, but they did
write (and gave me) a copy of the
hint book for *M&M III* which is 240
pages long!

Lots of kind readers have sent me
their hints and tips for *M&M II* and I
have searched through them looking
for references to Nature's Gate.
Whilst most of them mention picking
up the spell nobody actually mentions
where, if at all, they used it. In fact
one writer said, "Frankly, I didn't
find much use for this spell". I can
only assume from this that it isn't
actually essential. If it only enables
you to time travel then I did find ref-
erences to other means of carrying out
that trick. There is a time machine
in Castle Pinhurst called the
Wayback Machine. Lord Peabody will
let you use it if you rescue his son,
Sherman. My notes tell me that
Sherman is found at location B4:
(8,1) - wherever that is! You can also
use the vortex holes at the corner of
each elemental planes to travel
through time.

If anyone else out there knows bet-
ter, perhaps you could drop a line to
this poor soul at 103 Lonsdale
Avenue, Ingle, Doncaster DN2 6HE

Cruise for a Corpse

Being merely 12 and having the IQ
of a distressed lemming. I am
stuck following the bit where you
look through Tom's Cabin. Help?

Sean Teibot, Grest Bookham.

Daphne and Suzanne are no longer in
their bedroom, so I recommend that
you now nip round there and search

through their things. In Daphne's
wardrobe you'll find a newspaper
clipping which you should take and
read. Once you've done that take a
stroll to Rebecca's room where she's
waiting to talk to you.

Ultima VI

I am tormented by a fabulous
game called Ultima VI. Do you
know where the last piece of the
map is? I can't find the one
which is in Dungeon Dastard -
probably because I can't find
Dungeon Dastard! Even better,
could you tell me where the
silver tablet is hidden then I
wouldn't need the map.

Seen O'Reilly, Nawbridge.

Dungeon Dastard is located north-
west of Tristate at 37N-3W. To my
knowledge there is no map piece
here; what you need are dragon's
eggs. Enter the dungeon and head
north. The way leading down to the
next level is at 37N-20E. Head to
location 44S-9W and that takes you
down again. 52S-17W is the next
exit. On this final level head north
to find the eggs. The dragons will
of course not be too pleased about all
of this! Take the dragon's egg in
Sandy, the cook in Tristate. Ask him
about pirates, and amongst other
things he will tell you about the
Mayor. Find the Mayor (he's at the
dock) and ask him repeatedly about
pirates and the map. He'll tell you
all you want to know. ■

If you've got any adventure game
problems that you are too embar-
rased to ask a friend about, pop it in
a plain envelope and send it to our
Mistress of the Night and she'll take
a close look at it for you.



HERE'S SOME-
THING TO CHEW
ON: DO WIZ-
ARDS USE SPELL
CHECKERS?
ANSWERS ON
A POSTCARD.



Welcome to that part of the mag where we like to spoil everyone's fun by printing solutions, tips, and cheats for games. Don't forget, every tip printed gets a free game courtesy of those nice people at Ocean's Hit Squad label.

MARVIN'S MARVELLOUS ADVENTURE 21st Century

Here are all of the level codes for this excellent, nay bloody colourful, little platform extravaganza:

- LEVEL 1: HEART OF GOLD
- LEVEL 2: BIG BANO SYSEX
- LEVEL 3: OOHING THE OO
- LEVEL 4: ZERO PLUS ONE
- LEVEL 5: SPIKKELS
- LEVEL 6: MOTORCYCLE
- LEVEL 7: TWIN PEAKS
- LEVEL 8: SO ALIVE
- LEVEL 9: FALLING
- LEVEL 10: APHEX TWIN
- LEVEL 11: ELASTICA
- LEVEL 12: MAX GOLOT

FLY HARDER Krisalis

Tom Marshall from Dundee has a few handy level codes for this interesting blast from a year or two back:

- PHOTON
- MAOAGRAV
- BLACKHOLE
- SUPERNOVA
- TRANSMITTER
- QUANT
- NEOGEOPOWER

And there's another tip... you can also type BIGBAND on the title

Snip Tips

screen to see the end game sequence in full

K240 Gremlin Interactive

An interesting tip from Devon Courtney of Massachusetts (I kid you not!). Once you've spotted an enemy asteroid, magnify it and then access the missile systems. Target the enemy asteroid and it will read as 100 percent. Fire the missile and, believe it or not, the enemy will open fire on itself! Aha!

THEME PARK Bullfrog

A clever little cheat thanks to Owen Thompson from Hull - albeit one that only works with rides to design yourself (i.e. roller coaster, monorail, rubber tubing, etc.). First of all, just build the smallest loop of track possible, turn the track on and then turn it off. You can then adjust the track all you like, but because the cost is based on the length of track you originally put down, you won't get charged for it. An absolute corker. Tip of the month: Easy!

MAN UTD: THE DOUBLE Krisalis

Richard Turner from Cambridgeshire has a nice little earner for this groovy footy game. When you win the Coca Cola Cup or the FA Cup, go to the cup draws and look at the cup you've just won. Every time you do this your money will go up by a million quid. Not bad.

LUNAR-C (CD32) Mindscape

Thanks to a young person known only as T Peters, we now



have a few codes for this interesting ramp:

- SECURITY ZONE -
- MEBQKSBAL
- COOLING CHAMBER -
- MFQCRHOCES
- ENERGY DUCT -
- WJRICCOFEU

PREMIER MANAGER 1 Gremlin Interactive

Bored? Michael Hastings from Nottingham suggests you type in 000123 on the phone for Latus 3. The Ultimate Challenge.

COLONIZATION MicroProse

A curious bug to be exploited thanks to Hull's Lee Thompson. Move an empty ship through the same square as a ship carrying cargo and men, and you'll magically transfer goods from one ship to the other very handy if you can't be bothered to go back to port.

OUT TO LUNCH Mindscape

Here, have some level codes courtesy of Graham Tottle from Avon

GREECE - TZATZIKI
WEST INDOES - PLANTAIN
MEXICO - FAJITAS
CHINA - WONTON
FRANCE - CHOUX

ISHAR 3 Silmarils

Another offering from Graham, where by pressing CTRL, ALT, V and the left-hand mouse button while the mouse pointer is to the far left of the screen, you can return your life points to maximum. And even more from this young Graham-star.

JAMES POND 3 Millennium

Type NIGHTMARE on the map screen and F10 will call up a cheat menu. Note: If you choose to play as Finnus, you need to pause the game and then press escape to restart (for some reason that's Graham didn't mention!).

And that's your lot. Please keep sending in all your tips, cheats and hints. Don't forget, not only do you get to see your name in print, but each tip used gets a free bit of Hit Squad software for the trouble. See you next month!

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Get Serious

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I like this time of year. Even though the weather might be grim and the days shorter than Dudley Moore, it means that I got to play Santa on behalf of the maga-

zine, and what better Christmas present could I give you than the full release of Imagine 3.0, the Amiga's favourite 3D rendering package? If that's not the best cover disk program in the world, ever, I'll eat my record collection. And we've even given you both the FPU and integer version too, with none of those cop-out disabled save options or time limitations that other mags impose on their cover disk software!

So now you've got your top flight 3D graphics package you're probably hoping that you'll find some new Amiga kit beneath the tree on Christmas morning. In case you were stuck for ideas, we've got plenty of suggestions. How about turning your A1200 into a tower system, complete with extra drive bays, separate keyboard, Zorro II and PC slots and a speed display that you can set to show 99MHz? If that turns you on! At last you can upgrade your A1200 to match the mighty A4000T for far less cash.

It's been a good month for innovations all round. The A600 has finally got its first accelerator boasting a 700% speed increase, and CD-ROM software has entered a new phase, with the release of commercial software on the silver discs. Anyway, I'm for a quick render session now. Enjoy the mag!

Tony Horgan
Technical Editor

Get your teeth into another selection of top product reviews, starting the MicroniK Tower and the wonderful World Construction Set.

● MicroniK A1200 Tower..... 68

Liberate your A1200 by transplanting it into a spacious tower case. The MicroniK Tower offers Zorro II and PC slots, along with all the benefits of a big box Amiga

● World Construction Set..... 72

Vista has previously had the fractal scenery generation field all wrapped up. Can World Construction Set steal its crown?

● AmiLink 74

Networking Amigas can transform a professional set up. Is AmiLink up to the job? We find out on page 74.

● Wizard vs TechnoPlus Mouse 75

Two new mice go head to head. Find out who comes out on top according to our technical experts



Wizard mouse, page 75

● A620 Accelerator..... 79

The world's first accelerator for the A600 has arrived: a 28MHz 68020 offering amazing speed increases, plus a Simm RAM slot to boot!

● Personal Suite 80

Personal Paint makes its way onto CD-ROM, along with a band of supporting applications and data files

● Magic User Interface 3.0..... 82

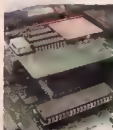
The controversial Magic User Interface (as used by World Construction Set) receives a new upgrade. Have the problems been ironed out?

● Football Mouse 83

Mad about football? Or do you know someone who is mad about footy? Why not try out this novel football mouse?

● CD-ROM Round Up..... 87

The latest releases from the CD-ROM scene



A620 accelerator, page 79

● PD Scene..... 89

All the best and latest new releases from the less serious side of the public domain: go on have some fun

● PD Utilities 95

Our regular round up of the more useful PD and shareware releases of this past month



Micronik A1200

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- Supplier: Wizard Developments ☎ 01322 272908



Everyone wants an Amiga tower system with Zorro slots. Now you can transform your A1200 into such a system for £500.

Console-type computers were the bread and butter of Commodore. The Vic 20 started the trend of the keyboard fitted console and led the way to the C64, the largest selling single model of computer ever. Many Amiga users don't plonk their pride and joy down in front of the TV any longer. It's far more likely to be situated on a desk with a monitor connected and running a copy of *Final Winter IV* as opposed to *Bubble Bobble*. The A1200 is now being taken to its limits as a serious multi-purpose multi-tasking computer.

A1200 power

With the current Amiga range consisting of the all-in-one A1200 and the tower-based A4000T, it'll be some time yet until we see a mid-range desktop machine from the Amiga Technologies stable. The desktop A4000 has been dropped (heaven knows why) and the A4000T's astronomical price tag lies well outside the price range of most users. However, the A1200 does have good expansion

capabilities. The standard array of ports on the rear coupled with the 32-bit trapdoor slot and PCMCIA port give excellent connectivity but anyone with a range of peripherals attached will know the kind of problems this brings in terms of desk space and wiring problems. The one thing these ports do not offer, though, is access to Zorro expansion cards, essential for 24-bit graphics, professional hard disk audio recording and many other high end applications!

The solution is to do what many say Commodore/Amiga Technologies should have done in the first place: put the A1200 in a desktop or tower case and add Zorro slots (they did, and called it the A4000). The kit reviewed here is manufactured by the German Micronik developers but UK readers will know it better as the Remiga 'Z' tower. Remiga have since folded but now Wizard Developments have come to the rescue by importing it once again. Armed with a set of screwdrivers, an adjustable spanner and a day long supply of strong coffee, we



set out to turn one of the office A1200s into the most highly specified A1200T ever seen.

Transformation

A bit of screwdriving is required to transplant the innards of your A1200 into the tower. The A1200 must be completely disassembled until nothing but the bare motherboard remains. Anti-static measures are essential in static prone environments lest the motherboard be destroyed by unwanted discharges. Removal of the case and upper RF shield is needed as is removal of all the port nuts until the motherboard is free of the lower RF shield.

The motherboard is then placed on its end inside the tower against an insulated plastic testing plate. Before this though, a right angle adapter is plugged into the PCMCIA slot. Because the motherboard sits hard up against the PCMCIA slot, previous incarnations rendered the port useless. Now with the adapter, a PCMCIA card such as the Squirrel SCSI adapter can be inserted to sit flat on the bottom of the tower case. All of the A1200's ports poke

through the custom pre-punched holes on the rear of the tower case. This is no ordinary PC case; it's been fashioned especially for this purpose. All of the port nuts are then screwed back into place, firmly locking the motherboard held up against the rear of the tower case. If purchased with an internal power supply (and it's recommended), the front drive brackets have to be removed, the back panels blanking plates removed and the power supply screwed into place.

Now that the front drive brackets are out, the fiddly business of fitting the front panel power switch can be carried out. I feel this part should really come pre-installed as standard. Powering the entire tower from the stock power supply is asking for trouble. Unfortunately the cost of the power supply is higher than it should be. These things normally cost £20. It might be possible to fit one bought elsewhere.

Breakout

Micronik's most innovative component comes next: the Zorro breakout daughter board. Amiga

Which Keyboard?

One of the options when purchasing the Micronik tower is to use either a PC AT type keyboard or your original A1200 keyboard. Surprisingly the latter is the more expensive and involved method. A separate kit consisting of a keyboard housing is provided with special driver circuitry built in. The A1200 keyboard is fitted, the ribbon attached to the circuit board and finally it's screwed together. The case is a little flimsy and doesn't fit together perfectly but at least you end up with a real Amiga keyboard. It worked faultlessly and I personally prefer it to the PC keyboard. If the PC keyboard is opted for, you just plug it straight in, but special key selections must be used to gain access to the unique Amiga keys. PC keyboards are of higher quality though and cheaper to boot.

OTower

length of ribbon is provided to connect the A1200 motherboard keyboard plug to the daughter board. This is needed since the new keyboard jacks into a port on the rear of the tower which is wired to the daughter board. There's a small trapdoor slot split in two. This fits onto the A1200 trapdoor connector and is best fitted first to the Zorro daughter board and then into the tower and connected to the A1200's trapdoor slot. Thankfully this method gives a trapdoor slot pass-through, so you can use A1200 accelerators and RAM boards. After fitting a couple of rear panel braces, which pop up the rear of the daughter board, the A1200 motherboard is pretty much obscured from view. All of the various connectors that are wired into the tower can be attached to the daughter board. It's relatively easy since the right kind of connectors and cable lengths are provided. Power supply, if fitted, will connect directly into the Zorro daughter board to power the whole system. Naturally the pass through power socket on the rear of the tower supply will allow you to connect a monitor from the connector of the front panel power switch. Finally, the installation of the A1200's floppy drive in the drive

bay is easy enough but the provided bezel can be the source of a few problems. There were quite a few different types of floppy drive supplied with the A1200 during its manufacturing history. None of our A1200 floppy drives fitted the supplied bezel. In the end it was necessary to snip off a couple of bits of plastic but it still seemed solid enough. It did need to be mounted at a slight angle in the drive bay but this isn't a real problem. The cable provided has another connector for a second floppy drive.

Duff button?

The front panel of the tower isn't as straightforward as you would think. For a start, there's a reset button that actually does function as a hard reset. A key switch is provided but has no effect which is a shame since it could have easily disabled the keyboard.

The Turbo button is a distinct problem. It's supposed to enable/disable any accelerator fitted in the trapdoor slot pass-through. Unfortunately it didn't work on any of the accelerators we tried including the excellent Blizzard units.

Turning the accelerator off merely resulted in a complete hang of the machine and the tower would refuse to boot at all. This button really needs to be disabled to stop accidental crashes. Three lights represent power, turbo and hard drive access. The hard drive light functions for the internal IDE drive which is a nice touch. The numeric display is configurable via a wad of jumpers behind the panel, both for turbo and turbo modes. You could always configure it to say '90' for sheer pose value. The first of the three digits on the numeric display is used to indicate floppy drive access, a letter 'O' lights up whenever the floppy reads or writes to a disk.

Mark of Zorro

The major advantage of converting an A1200 to a tower system such as this is the addition of Zorro slots to the system. Zorro is a connection standard used by 24-bit graphics cards (Retina, CybarVision, EGS Spectrum, Picasso etc), 16-bit sound cards (Tocatta, Sunrise AD16, One Stop Music Shop etc), IO expanders (such as Ariadne or the GVP IO Expander for networking and comms), digital video recorders (PAR and VLab Motion), SCSI cards and various other powerful plug-ins. With the Micronik A1200 tower system, you can expect a data transfer rate somewhere between 3Mb and 4Mb per second across the Zorro busses.

A bit tricky

The construction isn't too complex for anyone who's handy with a screwdriver. But even if you think you're up to it, it's still recommended that you have an electronics expert on hand if at all possible just in case things get a bit hairy. Fitting CD-ROMs, hard drives and Zorro cards after the tower is constructed is easier than with a desktop A4000. There's plenty of space to be had for the drives and cables. If the power supply is fitted you get three large sized disk drive power connectors and two small ones (for floppies etc).

At the time of going to press, Wizard Developments couldn't clarify if they'd be able to provide an assembly service. Give them a call if that option sounds attractive.

To the test

Finally after construction, I powered up the new A1200T and it worked last time. Deciding to go rapidly overboard, I removed all the Zorro cards from my A3000, an Octagon SCSI card, a GVP IO Expander and a GVP Spectrum Graphics board. All were fitted to the tower and the A3000's SCSI drives fitted to the bays. The A3000 system fired up first time on the newly expanded A1200T. The graphics board glowed down as it was now connected via a Zorro II slot rather than the A3000's Zorro III but it was still much quicker than the native AGA chip set. The Shape-Shifter Macintosh emulator functioned perfectly with the graphics board. Truly an impressive beast.

Given the price of an A4000T (£2,199 excluding monitor), the Micronik tower is not only a great option for existing Amiga 1200 owners but also cost effective way of building a serious Amiga system without paying silly money. Perhaps a modified tower version of the A1200 Amiga Magic pack could be put together by Wizard? The A1200

has good connectivity options but with the addition of Zorro slots, it has the best of both worlds. The Micronik A1200 tower kit is not just a hack for ultra keen enthusiasts. It's a brilliant expansion system that turns the A1200 into a monster machine for a reasonable price. Most highly recommended. ■



▲ The A1200's ports protrude from specially punched holes in the rear of the case. There are also holes for the power socket and video ports.

MICRONIK A1200 TOWER

STYLISH, SLENDER AND WORKING AMIGA A1200 EXPANSION UNIT

Unbeatable value for money. Power supply channel access for hard drives and Zorro cards.

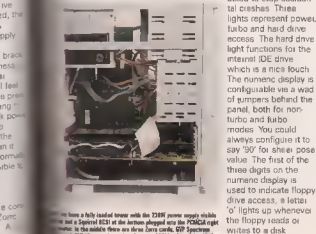
33% faster than standard Amiga 1200.

Dead weight but could be better.

OVERALL

The ultimate A1200 expansion.

90%



▲ Here's a fully loaded tower with the 330W power supply visible. In the middle there are three Zorro cards, GVP Spectrum SCSI card, GVP IO expander and an Octagon SCSI hard card. Retina II

World Construction Set



■ Price: £119.95 ■ Developer: Questar Productions ■ Supplier: Blittersoft ☎ 01908 261 466

Create some brave new worlds with your Amiga and this amazingly powerful software. Will the earth move for you?

Computer generated landscapes have many uses and practically any form of graphics work can benefit from a realistic background. Sometimes it's not possible to use a static scanned image, for example when you are creating an animation and need a continually scrolling backdrop.

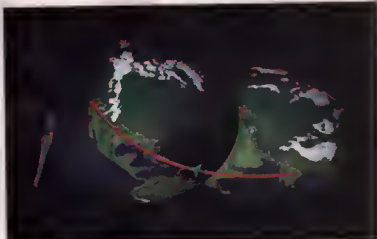
You might want a particular location rendered at a particular time of day, at a particular time of year. You might even want to animate the landscape itself changing, and that's not something you would want to do by hand.

Whilst it is theoretically possible to create a complicated landscape model in a program like *Imagine* or *LightWave*, it would take a huge amount of effort and time. Also, animating a long fly-by sequence or positioning lots of the trees and rivers could take forever. I'm glad it's not something I have to do.

To MUI or not to MUI?

The use of the third party Magic User Interface system is a contentious one, certainly in a commercial program. It is easy to see why the authors of *WCS* decided to use it: there are so many menus, requesters and gadgets that using a well-proven system like MUI must have saved a great deal of development time.

MUI is responsible for the smart looking Graphical User Interface, although it is noted for a lack of speed. Certainly on an unexpanded A1200 this might be a problem, but as *WCS* realistically needs an 030 and lots of memory, you probably won't have anything to complain about. One distinct advantage is that *WCS* is totally graphics card friendly and on an 800 by 600 screen looks superb.



▲ You can even zoom out so far that you see the entire planet, and watch as it rotates.

Vista was one of the first automatic landscape generators. Feed in the data, then sit back and watch as the results appear on screen. *Vista* also used 'real world' data, so you could feed in real geographical locations and an accurate picture would pop up on screen.

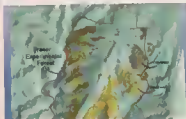
The World Construction Set (*WCS*) is the latest program to promise realistic output, and you know it must mean business because the manual at over six hundred pages would stun a New Zealand rugby player. It builds on *Vista*

in many ways, but provides considerably more control. In fact the authors would prefer it if you called it a '3D geographic information system' capable of generating maps and renderings of virtually any kind of geo-referenced spatial data. And yes, it does make some very pretty pictures.

In the beginning ...

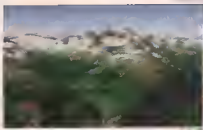
Creating your own world is straightforward enough. Load in a project file, or create one from scratch. The project file contains all the information needed to create an image, and includes everything from the geographic data to the position of the imaginary camera with which you'll be taking your photographs.

As you would expect, there are plenty of controls for creating animations and fly-bys before you even get to the camera moving capabilities, you can change the world by using altering image maps on the landscape. You can give the impression of moving traffic, rippling lakes. Add some backdrop images and clouds will move in the sky, whilst the sun across the scene and the shadows (or even seasons) change before your eyes.



▲ *WCS* is equally as good at creating flat maps as 3D renders.

will be a while before you reach this stage of complexity, as I still be working through the tutorial sections in the manual. The tutorials are essential, as is reading the entire manual at some point, because of the many, many different settings which can be tweaked to make your final image perfect. Everything from the type of trees at particular altitudes to the 'facticity' of the landscape needs to be fine-tuned. You can dial in the level of haze (and how far away it starts to be noticeable), the appearance of any fog—in short you can play with almost everything in the scene before you hit the render button, you could be sitting with a scene for hours. Rendering speeds will depend on your own hardware (even on a 68040 based Amiga, high resolution images take a few moments, or more the higher the image detail required).



at <http://sun1.csl.wisc.edu/~wgs/gov/landscap/30esdcdem.html> for starters.)

A 'readme' file on the disks indicates that on sending back your registration card you'll receive the DEM data required for rendering the full globe image at reasonable detail—a good incentive to respond.

On top of the DEM files, WCS can apply yet more data in the form of EcoSystems and Vectors. These define the colour of any vegetation and plant life, and the position of any rivers or lakes. It's even possible to mark political or other boundaries, and so WCS could be used to produce stunning 2D maps, automatically marked with important locations.

When extra detail is required, the comprehensive DEM editing system allows adjacent files to be loaded, merged or interpolated (smoothed) which makes it a kind of word processor for geographers. If you can track down a DEM form in one shape or another there is a very good chance that the WCS can use it.

Conclusion

Comparing WCS to the obvious rival Vista is difficult because although both programs achieve the same goal, both approach it in very different ways.

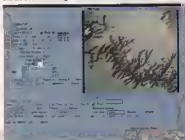
Whereas Vista tries to make it as simple as possible to create an image with minimum fuss, WCS requires a great deal of fine tuning. Practically everything is user definable to an incredible degree, with hundreds of buttons to press and values to select. This is a double edged sword. When starting out, there is almost too much detail to have to cope with. However, when you do finally start to catch a grip you know that it will be a long time before you exhaust the possibilities.

Yet, there are strange omissions. There are no buildings, or cloud generation facilities. WCS seems to think itself above such trivial details, and instead provides backdrop options and Z-Buffer output routines so that you can drop the necessary detail into the landscape in a post-rendering way. LightWave users will love WCS, because of the ability to import motion paths and play with the Z-Buffer.

There is no more detailed landscape generation program available, that's for sure. If you have the need for realistic images, and you have the beefy hardware to tend you have no choice, but don't expect to have as much immediate fun as you would with Vista. The two programs are a worlds apart. ■

John Kennedy

▲ Using a keyboard shortcut is one speedy way to provide the background for the WCS image. Images to be used to provide game background images. How images are generated, with the clouds and landscape vanishing into the distance on the screen, back and forth.



▲ It looks like a daylight image but the image seen is rendered from your DEM data as you watch.



▲ The airbrush image even demonstrates where the distance haze starts by rendering in blue.

Dem old DEM files

The WCS uses the now-standard DEM (Digital Elevation Model) files to provide an accurate description of the area it is rendering. What makes WCS special is that it models the earth as a spherical object, not a flat blank sheet. When mountains are suddenly plopped onto you can actually zoom back further and further until the curvature of the earth is visible, and then watch as mountains peek out over the edge before vanishing as the Earth rotates.

You can also set the sun moving overhead to alter the lighting; enter today's date and time and watch as the view outside your window is re-created for you on-screen.

Well, strictly speaking that is not possible unless you regularly use your Amiga in the Grand Canyon or one of the other locations described in DEM format. The data supplied is a little limiting for local UK use, and you will need to do a little investigation in order to track down the necessary DEM files. This is understandable, as even the tiny portion of America which is supplied takes up most of the five disk distribution. The makers of WCS are willing to help you find files, although Internet access would make things a lot easier using a World Wide Web browser, try looking

The Control Panel

This is most important window on the display as it is full of vital items.

BACKGROUND MODULE
The main window view which makes up the background pattern and the various objects (trees, rivers) which can be rendered.

RENDER MODULE
Here you can set the resolution of the final image, the colour background pattern and the various objects (trees, rivers) which can be rendered.



DATAFILES MODULE
The DEM files are loaded, edited, merged and saved here.

MAP VIEW CONTROL MODULE
Click on this to see a grey-scale 2D render of the area you are editing. You can also see 2D topographic and shaded representations.

PARAMETER MODULE
This is the final window everything from camera motion to the landscape is controlled.

WORLD CONSTRUCTION SET

By Robert A. Kohn, Editor-in-Chief
WCS 2.04 is better! 4MB of RAM and hard drive. 4MB RAM and hard drive is better recommended.

6800 There's a lot of power in it, it's worth looking to start with.
6128 And you know you get to grips you know there is nothing you can't do with it.
6150 Generated by the power of some graphics tools, this right thing.

6200 Overall
6200 The most powerful
6200 landscape rendering
6200 system money can buy.

90%

AmiLink

■ Price: US \$299 ■ Developer: AmiTriX ■ Supplier: AmiTriX ☎ 403 929 6459

This innovative all Amiga multi machine networking package gets the CU Amiga benchmark grill.

What is networking? Quite simply, it's the act of connecting any two or more machines together so that they may share data. Why should you want to do that? There's quite a few reasons. Usually because one Amiga has drives connected to it that you want to use on other networked Amigas. You might like to share files or even talk to someone on another machine. AmiLink is the first system that works on all Amigas (except the CD32) and can connect more than two machines.

Get together

AmiLink works by using Ethernet style cables and connection methods. A shielded coaxial cable (as found connecting signals to TVs) is run from each machine in turn along a chain. Depending on where the Amiga is, a T-type pass-through connector is attached to the hardware or a terminating connector, which is used for the machines at either end of the chain.

Isn't Ethernet

There's no connection port common on all Amigas that's capable

of moving data at Ethernet-like speeds. The Canadian AmiTriX Developers have instead opted for the innovative approach of using the disk drive port. The hardware can even be connected to the pass through port on external disk drives if needs be. The entire hardware is housed in the small DB plastic 'shroud' with only a BNC type connector, the kind found on more expensive VCRs for composite video protruding from the rear.

Bizarre method?

It may seem a bizarre approach to use the disk drive port rather than the more logical parallel/printer port. There's a number of advantages, though. The first is obvious in that a printer can also be attached to the networked machine since the parallel port isn't used. The second is that the hardware that drives the disk drive port is the custom chip known as Paula. Paula is capable of moving data at 450,000 bits per second. Considerably faster than ParNet which uses its serial rather than parallel. Lastly, the most impressive aspect for us, was the low

CPU consumption, even during heavy use. This is made possible because Paula's disk drive controlling circuitry is DMA capable. She can write direct to the Amiga's RAM without the aid of the CPU at all. This is a serious advantage over ParNet which can cripple both machines during a transfer by hogging all the CPU time.

Kickstart 1.2 compatible

An AmiLink package bought in basic two machine guise comes provided with networking software called AmiLink 2.0. Fortunately it will run on all machines from Kickstart 1.3 and up. This is essential if older machines such as CDTV's are to be connected. Unfortunately, the Commodore Installer script provided is a bit shaky and doesn't have enough on-line help in 'expert user' mode. I raised this point with AmiTriX development and they promised to work on it.

If you're used to ParNet and the like, getting AmiLink up



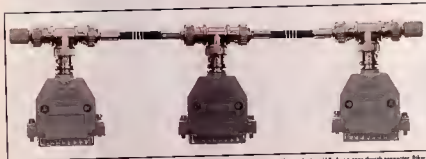
▲ Here, one Amiga is about to request the Workbench partition of another Amiga, one of the AmigaLink 2.0 software. Dragload shows 40 add & per second with nearly 80% CPU time. Impressive in say the least.

and running is a piece of cake. It's also far more intuitive with simple GUIs letting the user select drives to import (access from another machine) or export (allow other machines to access). The supplied manual details the installation procedures needed for OS 1.3 since the newer methods that the GUI systems require won't work on Amigas running this. You need a TMB Amiga to export devices, though 512K machines will be able to import devices.

Excellent envoy

AmiLink might be good but it's not the best. With no user accounting or file security, if you don't trust everyone on your network and not all the machines connected are yours, then better networking software is required. The alternative is Envoy and also comes with the AmiLink package so that you can pick the best for your own needs. Envoy is designed to operate with any software drivers that support the Commodore SANA II standard. A SANA II driver for the AmiLink system is also provided which works perfectly with Envoy.

Envoy does everything any network software should do. It allows you to add users to your machine, assign passwords and give them certain kinds of access to your devices. One person



▲ Shown here is the compact AmiLink hardware. The model on sides are equipped with terminators. The one in the middle has a pass through connector. Show Amigas added in the chain would also use this pass-through type connector. An efficient and easy networking method.

AmiLink Shopping List

• **Basic Starter Kit** comes with two network modules, AmigaLink software, Envoy software (two-unit license), connectors, terminators, 5m (16.5ft) long cable and manual: **US \$299.**

• **Single Expansion Kit** comes with one network module, connector and 5m (16.5ft) long cable: **US\$135.**

• **Shipping Costs (First Class Mail): US \$12.00.**

Custom cable lengths available on request, and also splitter cables for external floppies with no pass-thru port. Payment can be made by Bank Draft, Money Order or Postal Money Order.

• For further information you can contact AmiTriX at AmiTriX Development 5312 -47 Street, Beaumont, AB, T4X 1H9 Canada. Tel/Fax: 403 929 8459 or E-Mail sales@amitrix.com.

could have read only access to your hard drive while another would have complete freedom to modify your user settings remotely. This could even be yourself logging in from another machine. AmiTriX told me that I should expect a performance boost with the Envoy software. Unfortunately, this turned out not to be the case. Tested with two completely different systems, first with an A3000 and an A1200, and then an A4000/40 to another A1200, Envoy proved to be

markedly slower across the board when benchmarked with the DiskSpeed utility on a remote RAM drive. A tragic shame in light of how much better Envoy is for all other aspects of running a network.

Shaky link-up

For most people's needs, AmigaLink will be all that is needed. However it's less than robust when any machine resets or crashes.

If you are looking at AmiLink

for connecting a lot of machines with different users, Envoy is highly recommended. The extra features and robust nature would outweigh the performance loss incurred. Overall, AmiLink performed at slightly better than ParNET type speeds with the AmigaLink software and slightly worse than ParNET using Envoy Access to your computer by another wasn't noticeable with either.

Another problem cropped up attaching the AmiLink hardware to the rear of a Power Computing high density 'XL' floppy drive. It seems that the buffering electronics inside this drive caused a marked performance drop from the machine with the drive connected.

Conclusion

AmiLink is a wonderful networking system that functions on all Amigas. However, it's too expensive for average users just wanting to connect a machine with a CD-ROM or the like. These people are far better off with PD ParNET like systems and a E10 ParNET cable. The CPU

disadvantages are not so much of a problem under those circumstances. User groups and schools would find AmiLink invaluable coupled with Envoy. It then becomes a relatively cheap method of networking many low end Amigas together than was previously impossible. If the price was lower, AmiLink would be one hell of a great system. We might have even kept it ourselves. ■

Mat Bettinson

AMILINK	
A300	System requirements: Any Amiga. This needed to support floppies
A300+	
A400	Installation is easier than ParNET and will handle work
A1200	Not exactly fast but no other network can connect multiple machines
A1500	Just too much to pay for the average Amiga buyers. Reasonable for organisations though
A2000	
A3000	OVERALL: An innovative quality product earned by the high cost.
A4000	76%

TechnoPlus vs Wizard 560

■ Price: £14.99 ■ Supplier: Leisuresoft

☎ 01604 768711

Two new mice are compared head to head this month.

I think it's fairly safe to say that most Amiga users have retired their original Amiga mouse by now. Two new mice have turned up to clean their shakers in time for Christmas. How do they shape up?

Bulbous rear

The TechnoPlus is a stylish ergonomic affair, gently moulded with a bulbous rear. It fits well into the hand though I felt it was a bit small for my largish paws. My Horgen thought it was about right. Conversely the Wizard mouse is a simple stick with the highest point being in the middle. It's much wider and bent from the severe arch forwards. It has a square base on the sides. The width was fine for me but unsurprisingly Tony Horgen thought it was too wide

Appearances

The mice differ radically in more than looks. The TechnoPlus is a standard two button mouse with quiet low-action buttons. The Wizard is a three button unit with a louder and more definite action. Resolution-wise they are at opposite ends of the scale too. The Wizard is the highest resolution



mouse I have seen at an impressive 560 DPI (dots per inch). The resolution of the TechnoPlus isn't specified but seems on a par with the original Amiga mouse (a measly 260 DPI or so). Generally a high resolution mouse is preferable, especially for graphics work, as it gives more precise movement of the pointer but this in turn requires precise movements from the user. A low resolution mouse would only give suitable for those completely new to mouse control or in certain cases of impaired hand movement. A low resolution mouse would need to be dragged further across the desk than a high res mouse to achieve the same effect.

And the winner

The Wizard mouse is superior and now that I'm used to using the utility MultiCX to flip screens with a click of the middle button. I treat three buttons as a real essential feature. The resolution of the



Wizard is also amazing. I like the option of an alternative black colour scheme for the Wizard mouse. Basically the Wizard mouse is for the expert, the TechnoPlus mouse for the beginner. ■

Mat Bettinson

Techno Plus	78%
Wizard 560	90%

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2 Meg Fatter Agnus	£24.00	8574 Alice A1200	£30.00
8362 Denise	£9.00	8364 Paula A600/A1200	£16.50
8373 Super Denise	£18.00	Viduo DAC A1200	£19.00
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Apollo 620

■ Price: £139.99 (0Mb) £259.99 (4Mb) ■ Developer: Apollo ■ Supplier: Visage ☎ 0115 964 2828



The world's first A600 accelerator arrives to push the little Amige to a 700% speed increase.

While the A600 has good expansion capabilities, it's always been a 7MHz 68000 based machine—the same speed as the first Amigas made over 10 years ago. It was a prime case for some form of accelerator but the problem was that there is no provision for getting access to the CPU lines in the A600. Even the CPU itself is surface mounted (soldered directly onto the motherboard which means it can't be removed to insert an accelerator as in the A500.

Apollo, however, with the 620 has solved the problem in a highly innovative fashion.

The Apollo 620 accelerator possesses an upside down PLCC type socket, like those that hold the FPU's in place on many accelerator cards. The socket is mounted on the underside of the 6620 and is lowered over the 68000 chip on the A800 motherboard. The 620 then overrides the 68000 and replaces it with its own 25MHz 66020 CPU and 68882 FPU. Sounds good so far.

Sticky solution

The problem, however, with this solution is that the socket can't slip onto the chip. To maintain a connection, a constant downward force in the region of the doggyback socket is required. To get around this, Apollo Systems have put a sticky pad inside the socket. A protective layer is removed, revealing the adhesive, and the unit pushed down on the BQCC for around a minute. Hopefully this should hold the calculator down last

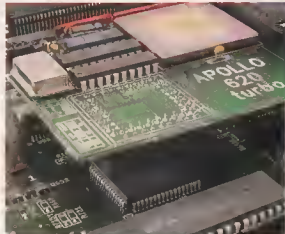
Unfortunately we were unable to test the plug method since

this would be permanent. If the G20 is glued down and then forcibly removed, it is highly likely that it will pull the G8000 off the motherboard leading to an expensive repair! So we devised our own impromptu method of attaching the G20.

Firstly, three rubber feet are supplied at two corners of the unit to prop up the other end of the 620 from the piggyback socket. One of the feet had to be removed from each stack to get the right height.

Also the first memory Simm we tried was too deep. A motherboard component and the floppy power connector write in the way. A smaller Simm was found and fitted. Then a centimetre thick bag of silicon gel (often found in packaging) was placed over the top of the piggyback socket. This is where downward force is required to make a connection. The provided plastic shield was placed over the top and finally a wad of paper to get the necessary height. This height is needed so that the keyboard, when screwed back into place along with the top half of the case, will push down on the paper and other padding to attach the 620 piggyback socket firmly on to the 68000. A body solution maybe, but it worked and that's what counts.

The 520 accepts Sirmm memory capacities from 1Mb to 8Mb. The 25MHz 88020 CPU and 68882 FPU combination are directly linked to the memory with a proper 32-bit local bus. The combination of these two factors means that the Apollo 520 accelerates an A600 to over 700% of its original speed! This



▲ Shown here is the Apollo 12R. It's being lowered onto the 0000 surface mounted on the large 0000 workboard. A glassed knee is in place (hopefully) on some other form of improved downward force.

would be an acceptable speed for an A1200 low-end accelerator, let alone an A800.

RAM power

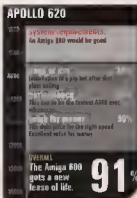
As with all accelerators, adding RAM is essential to gain any real speed benefit at all. There are jumpers on the 620 to select 68000 or 68020 operation and the size of the Smm. Someone technically minded might like to use these to switch on the case to disable the unit for game compatibility. Believe me, it wouldn't be feasible to unscREW the case and disable the 620 if it was glued down in the correct manner. If the glue fails to function according to plan, the 'shove a wad of paper in the Amica' method should work OK.

Unbelievable

With the 620 in place, the difference is amazing. Suddenly the machine is running at accelerated A1200 speeds. This month's game demo, *Zaxxon*, is a classic example of how CPU intensive games can benefit with it flying along much quicker than an

A1200. However, most potential users of the 620 would be interested in how it performs with serious software. In a word, superb. If upgrading to an A1200 with extra memory is out of your price range and you feel able to attempt the tricky installation, I heartily recommend the 620. Otherwise you can call Visage for details on a fitted upgrade which is also available. ■

Met Bettinson



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OVERALL
The Amiga 600
gets a new
lease of life.

91

Personal Suite

■ Price: £49.95 ■ Developer: Cloanto ■ Supplier: Emerald ☎ 0181 715 8866



Commercial Amiga software is finally starting to appear on CD-ROM. Here's Personal Suite ...

Personal Suite introduces a new concept in Amiga software distribution. That's not spelt, it's fact. This is a compilation of commercial software contained on a single CD-ROM, with all documentation included as AmigaGuide documents rather than in printed manuals form.

Top of the bill is Cloanto's excellent *Personal Paint 6.4*. Supporting roles are played by *Personal Write*, *SuperBase 4 Personal* and some *Personal Fonts* (colour Kara fonts). Bonus files include a books section

which has a selection of classic fiction in the form of AmigaGuide documents. *Personal Fonts Maker 2.0* is here to let you design your own typefaces. Finally there are some PNG database utilities and *DirDiff*, a developer's disk tool.

Getting personal

We last looked at *Personal Paint* when it reached version 6.4, rating it at a respectable 84%. Since then its main rivals *DPaint* and *Brilliance* seem to have thrown in the towel in the Amiga paint package race, leaving *PPaint* to give up the new features we demand. The updates

since 6.1 seem to be minor, but any increase in efficiency is welcome. *PPaint* is a fast paint program that works in all Amiga screen modes in up to 256 colours and supports retargetable graphics for use with 24-bit graphics cards.

Rather than trying to match *DPaintV* feature-for-feature (which would be rather pointless), Cloanto have put their time into developing a set of new and unique features. These include a useful image processing section, which is not comprehensive by any means, but does sport some clever options for cluster dot dithering and 3D stereogram creation. On the animation side, there's an excellent storyboard section and converting animations to new formats, resolutions and colour depths is handled with ease. However, there are only sparse functions for creating anims from scratch.

One of *PPaint*'s best attributes is its speed. This comes about partly from the speed of the program code, and partly thanks to the user-friendly features such as automatic JPEG loading, intelligent image conversion when necessary and the intuitive interface.

For *PPaint* alone, this CD offers good value for money. The



▲ One of the highlights of Personal Suite is the inclusion of *PPaint*.

addition of *SuperBase*, *Personal Write* and the supporting utilities and files bolstai the value further still. The only problem with supplying software in this way (on a single CD in a neat circular metal box) is that there's no printed documentation. The AmigaGuides include all the information you need, along with illustrations in places. But I still prefer to have a ring-bound manual sitting on the desk when the going gets tough.

Conclusion

All in all this marks an important step in the progress of Amiga software. Commercial PC software has been widely available on CD for some time, and it's about time the Amiga market caught up. The extra capacity for support and demonstration files alone is reason enough for others to follow suit. ■

Tony Hoagran



SuperBase 4 Personal
While it may not be the world's most powerful or flexible database, *SuperBase 4 Personal* is certainly fast. Capable of handling graphics as well as text information, *SuperBase* helps back up presentation files but delivers the basic database essentials.



Personal Fonts Maker
Should you lead the world in type you may have to use with *Personal Paint* and other Amiga applications, *Personal Fonts Maker* is also present on the CD. A set of simple drawing tools and a grid allow entire alphabets and special sets to be drawn from scratch.



Personal Write
Personal Write is a word processor with some interesting features. While the most obvious ones may be a spell checker, it also offers file encryption for saving out files you don't want others to read, along with stacks of configuration options.



Kara Fonts
A handful of 'Kara' fonts are on the CD. These are generally big, bold screen fonts that are best suited to video games and other presentations, where they tend to be large and legible from a distance. They've all been created by a dedicated two-fingered girl called Kara - hence 'Kara' fonts.



Example Graphics
There are example images and sometimes supplied by well-known Amiga artists like Sachs and Lou Schreiner, ready to load into *Personal Paint*. Karl Bidmeier and Dr. Clay have also created a large collection of very high quality pixel and vector. Excellent viewing.

PERSONAL SUITE

SYSTEM REQUIREMENTS:

OS 1.3 1MB RAM

Recommended: 2MB Chip Mem

Hard drive

A 5 megabyte CD. The software files

include some data for a demo, but

A high quality demo version for

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general users

Overall

Worthwhile for

Personal Paint

alone - the rest

is a bonus

90



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Magic User Interface 3.0

■ Price: £15.00 ■ Developer: Stefan Stuntz ■ Supplier: Paul Jewel ☎ 01222 257890

Finally, the long awaited new version of the controversial Magic User Interface arrives. We take a close look.

Graphical User Interfaces (GUIs) have revolutionised the way people use computers. Before GUIs (often pronounced gooseys), most computer input and output was purely in the form of text and numbers. Fortunately that's all history now, as the Amiga helped lead the march into the age of point-and-click computing.

From Kickstart 2 onwards the Amiga comes with a GUI called GadTools which is stored in ROM. Programmers can use this to create clear and simple graphic front ends without having to worry about writing low level program code to draw all the boxes and gadgets, and handle the user input. For example, all of Workbench programs were created with GadTools.

Because GadTools resides in ROM (rather than RAM), programs created with it use very little memory. Also, due to the simplistic nature of the GUIs it creates, they tend to operate at a good speed even on 7MHz 68000 Amigas. It is, however, lacking in a great many features found in more modern operating systems.

On the 8th of August 1993, Stefan Stuntz introduced a new GUI system called Magic User Interface or MUI for short (usually pronounced 'Mooney'). As it was updated through time, it gained more and more support from a variety of programmers around the world. However it also

caused great controversy. Any program written using MUI will only work if MUI itself is installed on the user's system. The several hundred files and several megabytes of hard drive space demanded by MUI proved difficult to swallow for low-end machine owners, as did the much slower drawing speed of the MUI interfaces, even if they were a drastic improvement, feature wise, on GadTools efforts.

Bad Reputation

Unfortunately MUI also got a bad reputation for being unstable and prone to crashes. One of the prime causes for this is a program called AMosaic, an Internet World Wide Web browser. AMosaic itself is notoriously buggy but because it uses MUI, the inference is that it must be MUI 'doing the crashing'.

The fact that many Amigas, like those at CU Amiga Magazine, run many dozens of MUI applications 24 hours a day without a single glitch, has done nothing to stem the tide of anger MUI feeling. The bottom line is that because MUI GUIs are so much easier for programmers to create, less experienced programmers manage to release software before their own bugs can be worked out.

It's not perfect though. Stefan Stuntz himself admitted that the redraw speed could be better and a more efficient use of



▲ MUI 3.0's most impressive feature is the fact that you can customise nearly every aspect of your GUI.

memory could be devised. These improvements were promised for the much heralded MUI 3.0. Using a 'drop in' upgrade system, MUI 3.0 promised to improve performance in all these areas and more and was finally released in November at the Computer '95 show in Cologne, Germany.

Major re-write

MUI 3.0 installation is carried out by a well written Commodore installer script. It will rename your MUI 2.3 directory and install MUI 3 in a new directory just in case you have some problems with your existing MUI applications. When I rebooted I found that all of my MUI preferences didn't function at all. Everything needed to be set up once again. That's not too surprising given the major re-write but it would have been nice to have some kind of conversion

utility to carry over the settings.

As promised, the libraries are split into multiple smaller module libraries. Only when specific features are required, will they be loaded into memory. It's a good move and in practice the total memory overhead seems to have dropped by about 100K. Redraw speed is virtually unchanged on fast machines with graphics boards but on low end machines with the native chip set graphics, the display is definitely quicker. Users of 7MHz machines will still not like the display speed but I'd say it's now fast enough for Atari owners with fast RAM, but maybe a little too slow on stock A1200s.

Custom Workbench

The aspect that has improved most, however, is the MUI preferences program. No longer a

Get It Here

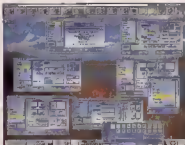
MUI 3 costs £18. For more information write to: Paul Jewell, at 7 Fairfield Avenue, Cardiff CF5 1BR. Previously registered MUI users will be charged just an update fee of £8.

We recommend that you obtain the unregistered shareware version from a PD House and use the provided utility to print a registration form.

You can contact
Paul Jewell at 01222
257890 between 8pm
and 10.30pm.

massive GUI full of dozens of widgets it's now smaller and much much faster. For those not familiar with MUI, the most impressive feature is how virtually every aspect of your GUIs can be customised to your own preference. If MUI prefs is activated as its own, it only modifies the general MUI settings.

For example, the settings for every program which can be further modified by settings for



▲ The same modular preferences to MUI 3.0 being shown off in the full

each individual program. Your MUI disk filer might have large round buttons with a marble back-drop and thick border lines, where as a MUI address book might have a tiny font, square hi-tech buttons and fast list refresh.

In the global preferences, you can activate any of four new window gadgets for all your MUI programs. These will appear next to the 'make small' and 'front to back' gadgets present on most Amiga windows. One of them is very handy indeed as it brings up a tiny menu containing 'identify', 'snapshot', 'unsnapshot' and 'settings'. The first turns the window

into an icon on your Workbench 'Snapshot' saves the position details of the window. This is another major MUI feature and means that when that window is opened again, MUI will remember its size and position. 'Unsnapshot' removes the preferences and 'settings' activates MUI prefs. The difference with activating the prefs this way is that the settings saved are only for the MUI application that launched MUI prefs rather than everything. This is a major improvement on how things were handled before.

Significant improvement

Over all, MUI 3.0 is a significant improvement over MUI 2.3. Stefan Stuntz has gone a long way to address the problems raised with earlier versions. I don't think this will entirely vanquish the MUI haters club but it will prove to everyone else that MUI is a very valuable, useful and

effective GUI system which, as Gilles Bourdin of Amiga Technologies said, is well worth looking at. No doubt programmers will continue to support MUI so our Workbench can be littered with impressive customised user interfaces.

The unregistered shareware version of MUI 3.0 is due to be released onto the public domain shortly. Call your favourite PD house to try it out for yourself. ■

Mat Battinson

MUI 3.0

system requirements
Kickstart 2.0+ and hard drive

After this simple installation, all your applications will function better.

MUI will be installed before 'Mac K's' and 'Mac K's'.

Just don't let me pay for a GUI system to Wink Amiga.

OVERALL
The GUI system the new Power Amigas should have.

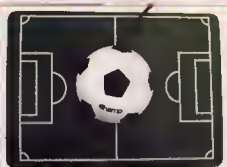
88%

Football Mouse

■ Price: £19.99 including mouse and mat ■ Supplier: Wizard Developments ☎ 01322 272908

The ultimate Christmas present for the football management simulation nut has to be this mouse. Which is just as well, because for most other applications it leaves a bit to be desired. This little football shaped mouse is a 400dpi device, which is a bit of a laugh really, because the sort of applications which require a mouse with reasonable performance in this league would be probably benefit from a bit more in the ergonomics and ease of use stakes.

Don't get me wrong it is a



▲ An ideal Christmas present for any football fan. This little set-up should make them feel even more part of it as they spend hours playing their management simulations

high enough quality mouse and I had no end of fun with it playing a game like *Ultimate Soccer Manager* but if you use it with a serious application the buttons are just not responsive enough -

never mind being difficult to find its flat, circular base, with four contact points allows the Soccer Mouse to move around very smoothly. But the fact that it's completely spherical and in a plastic football ball cover which obscures both of its buttons, making them overly awkward to double click efficiently really limits its uses.

For those with bigger hands it does fit nicely in the palm, especially if you get used to using your thumb on the left button and your index finger on the right button. This makes the cursor's planes of travel a bit more confusing but it makes the

Football Mouse much more comfortable to use over a period of time. If you have a smaller hand though, or if you try to use it the way a normal 400dpi mouse should be used you'll get frustrated, like Tony Hogan.

But hey, it works and it looks fun - and it is matched to a usable and durable mouse mat marked out in green and white as a football pitch.

Despite its limitations I just can't think of a more unusual gift present for someone who spends their entire life in front of a green screen wearing a sheepskin jacket.

However, if you want to use an art package you'd better

have a spare mouse handy. ■

70%

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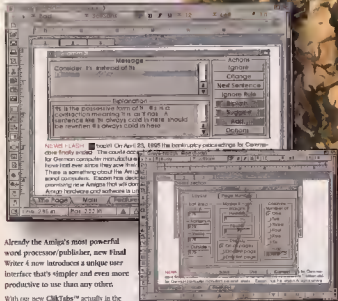
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CD-ROM Round up



Feed your CD-ROM drive with another selection of thinly-sliced plastic platters.



Light ROM 3

Light ROM 3 is a conveniently the best yet of the LightROM series, coming with three CDs and even a small booklet index detailing what's on each disc. The first disc is devoted to *LightWave* objects, textures and plug-ins. All the objects on this disc have been rendered and saved as screens of thumbnail images for easy previewing. The 'Buildings' section is particularly impressive, including a good Bates Motel for budding 3D Hitchcocks. Disc 2 holds another bunch of objects for other systems: 175Mb of *Imagine* data, 100Mb to 3D Studio, 30Mb for Sculpt and 7Mb of data for the *Real 3D*. There are also 700 JPEG textures here for use with *Wave*, *Scene Animator* and *Word Constructor*. Set. These are also included with 2D thumbnail preview renders. This is compatible with most of the Amiga's major 3D rendering systems such as *Imagine*. So, anyone using either *LightWave* or *Imagine* should add this to their shopping list. Also, worth a look from *Real 3D* and *Cinema 4D* users

Available from: Blittersoft, 8 Drakes
Mews, Crownhill Industry, Milton
Keynes MK8 0ER. Tel: 01908 251466
Price: £39.95 plus £5 (two day) P+P.

88

Euroscene 2

The thought is that if the data is not in the file, it is not in the file. The fact that the data is archived is not a problem in itself. It is the fact that the data is archived that is the problem. The fact that the data is archived is not a problem in itself. It is the fact that the data is archived that is the problem.



Available from: Almathara, Southern House, Boundary Business Court,
92-94 Church Road, Mitchem, Surrey CR4 3TD. Tel: 0181 687 0040
Price: £14.95 plus £2.25 P+P.

68%

TurboCalc 2.1



It's good to see commercial software appearing on CD for the Amiga. TurboCalc was reviewed in our November 1994 issue and was rated at an impressive 94%. It's here on the CD in its entirety in English, German, French and Italian language versions. There's no printed manual included - this comes on the CD as an AmigaGuide document - more convenient than printed or screen substitutes.

Turbo Calc is a spreadsheet at heart, but it also has plenty of extra features to expend its potential. For example, there's an in-built programming language. This can be used to ask the user for input and then perform calculations upon the input data. There's even a 'Connect 4' game included as an example project file to illustrate its versatility. Simple graphs and charts can be called up with a minimum of fuss. There's also a simple database section.

Available from: PD Soft, 1 Bryant Avenue, Southend-on-Sea, Essex SS1 2YD. Tel: 01702 466 933 Price: £9.99 plus 75p P+P.

89

PD Scene

Fancy a bit of fun? Why not take a dip into the public domain soup and see what comes out in the ladle. Tony Horgan tucks in ...

PD Gold Vol 1 game collection

This is real value. For £2 (including p+p) you get three classic PD games on four disks. *Chaniques*, *M*A*S*H* and *Nicky Time 2*. *Chaniques* is a strange Lemmings-style game in which you guide three characters of differing abilities through a series of landscapes. *M*A*S*H* is a bit like a low-tech version of *Worms* (coincidentally, it actually appeared before *Worms*). It's more playable on slower Amigas. My favourite is *Nicky Time 2*, a well crafted platform game with top



graphics, sound and gameplay. For an extra 25p you also get V12 PD's two catalogue disks is that top value or what?

Available from: V12 PD, PO Box 14, Louth, Lincolnshire LN11 8LF.
Price: £2 including P+P, 25p for catalogue disks (optional).



90%

Hellspawn 1 comic on a disk

The first of a monthly series. Hellspawn issue one is new disk-based comic book. The plot concerns a group of demonic superheroes who have been sent to create hell on Earth. Once you know this, the five disk sequence of pictures and the occasional animation is easier to follow. The artwork is of a very high quality, combining hand drawn and digitised graphics in an over the top comic book style. Despite the fact the £5 asking price would buy you a few real comics, Hellspawn is worth a shot.

Available from: 9th Level Publications, 10 Victoria Street, Galeshiels, Selkirkshire TD1 1HL Scotland. Price: £5 including P+P.



80%

Que? demo

You'll need a hard drive and an AGA Amiga for this one. It's one of those demos that tries to do what Amigas aren't very good at: solid 3D and texture mapping. Taking this into consideration, it's fairly impressive, but this seems to be getting away from what demos are all about. When you've seen much better on a PC and the new consoles, there doesn't seem much point. Even so, there are some pleasing sections.

Available from: 17 Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield, West Yorkshire WF1 1DH. Tel: 01924 366982
Price: £1 plus 50p P+P.



70%

Disk Magazines

Total Irrelevance
issue 12

Not that you'd guess from the title, Total Irrelevance is a disk mag dedicated to *OctaMED* and its users, compiled by the Med User Group. Taijo Kinnunen's 'Many' system is used as a front end which displays the articles using a simple scrolling text display. Three modules are included to entertain you as you digest the reviews, opinions and features. The feel is very 'clubby' in a chatty amateur sort of way. Don't expect to unearth too many top new tips for *OctaMED* but if you're just starting out or fancy swapping ideas and modules with fellow users, give it a shot.

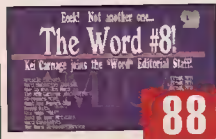
Available from: SeaSoft,
Unit 3, Martello Enterprise
Centre, Courtwich Lane,
Littlehampton, West Sussex,
BN17 7PA. Tel: 01903 850
378 Price: £2.50 + 50p P+P.

70%

The Word
issue 8

The Word is no stranger to these pages, as it consistently supplies a mountain of articles to keep any Amiga owner glued to their screen for hours on end. While there are plenty of Amiga related articles on the two disks, there's lots of general interest subject matter there too. The usual flashy interface is used to present all the articles. There's also an Adults Only section which can only be accessed if you correctly solve the password riddle at the start. Childish as I am, I failed, so I can't comment on this section. The Word is definitely the best value disk mag around and quite a good read.

Available from: Sedness PD, 13 Russell
Terrace, Muesdesley, Norfolk NR11 8LJ.
Tel: 01263 722169 Price: £2.50 including P+P.



88%

Black Dawn 6
game

You don't get many real RPGs these days so this should be a welcome sight for strategy fans. The *Black Dawn* series has been running for a while now, based upon the *Dungeon Master* 3D maze format. Number six looks more impressive than the last few although the gameplay seems to follow a similar route. If you like the idea of controlling a band of four characters through the forces of evil and you've had enough of *Dungeon Master 2*, it's worth a look, even if it does conform to all the RPG clichés in the book.

Available from: P1 Software, 31 Wellesgate Road, Exeter,
Devon EX2 0DU. Tel: 01392 493580 Price: £4.99 plus 50p P+P.

Burger Bar
game

If you liked the sound of MicroProse's *Pizza Tycoon* but couldn't buy the game because it never got actually released, how about this cheap substitute? It's not very good, but the idea is fun. You have to set up and run a successful burger bar, using a few basic management decisions (hiring staff) and by creating and pricing a range of burgers and sandwiches. There's also the job of buying furniture for the bar, investing in a few novelty toy promotions and a few other bits and pieces.



It all sounds straightforward enough but there's one problem - all your finances seem to be specified in units, rather than pounds or dollars and I suspect I may have unwittingly underpriced my menu by including decimal points. But then again, who can tell?

The status read-outs are rather too unhelpful.

Available from:
Pixel Digital PD,
Unit 6, Laurel
Business Centre,
18 Laurel Road,
Liverpool 7.
Tel: 0181 259
4017 Price: £1
plus 50p P+P.

50%

Amiga Guitars music disk

Put your comfy slippers on and recline into your rocking chair Grandad. Here are four acoustic-guitar tracks just made for wearing a cardigan to. Actually some of them are quite good in places, with clean guitar strums and realistic-sounding arrangements in places. There's a pretty front-end on the disk, but it didn't work on my A1200, although the modules load into OctaMED fairly well.

Available from: Pixel Digital PD, Unit 6, Laurel Business Centre, 15 Laurel Road, Liverpool 7. Tel: 0151 259 4017
Price: £1 plus 50p P+P



82%

Return to Zantis adventure game

I was pleasantly surprised to find that Return To Zantis is an impressive point-and-click adventure game. I'd tell you all about the plot but I dozed off after the first paragraph. I think it's about an evil empire or something (you know the usual kind of thing). Anyway, it works like Monkey Island, in that you see your character on the screen and direct him by clicking on parts of the scenery. There's a tune that sits quite unobtrusively in the background. Lending the game an air of doom and gloom. I suspect that the game's not that big as it comes on just one disk, so the asking price of £4.49 might be a little steep. Still, good adventuring fun all the same.

Available from: F1 Software, 31 Wellington Road, Exeter, Devon, EX2 9DU.
Tel: 01392 493580 Price: £3.89 + 50p P+P



80%

DemoMania demo creator

No, it hasn't gone PD already! This is a save-disabled demo of the program we reviewed last issue. It received a 68% rating due to its unstable nature, but this is your chance to try it for yourself. DemoMania lets you make your own demos by selecting fancy plasma and scrolling effects from the point-and-click interface. You can include your own IFF pictures and animations, along with Soundtracker music modules but not OctaMED! While the effects are quite smart, they're hardly cutting-edge stuff. Everything from the release version seems to be here. For the sake of continuity, I've scored it just as the review version. For more details on its features see the review in the December issue.

Available from: Pixel Digital PD, Unit 6, Laurel Business Centre, 15 Laurel Road, Liverpool 7.
Tel: 0151 259 4017
Price: £2 plus 50p P+P



68%

Poweroids game

This is the unregistered version of a decent Asteroids clone. You only get to play one level at a time until you register. What makes this better than most is the small size of the sprites, which leads to a larger gameplay screen. It's all nice and fast with lots of little explosions going off all over the place. There's a two-player battle mode included to extend the game's life further still.

Available from: 17 Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield, West Yorkshire WF1 1DH.
Tel: 01924 369982
Price: £1 plus 50p P+P



78%

Magnetic Fiction spooky stories



Are you easily spooked? If so steer clear of this. It's a collection of stories designed to put a shiver up your spine and an unpleasant, warm damp feeling in your trousers. Not that it got me all of a quiver of course. Then again I've never been into scary fiction.

Available from: 17 Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield, West Yorkshire WF1 1DH. Tel: 01924 366 982
Price: £1 plus 50p P+P

60%

PD Utilities

Win at the dogs, update your icons and increase your Amiga's efficiency with this month's selection of PD utilities. Mat Bettinson is your guide to this month's plethora of goodies.

MCP 1.05 Multi-Purpose Utility

I've yet to see a more comprehensive utility. MCP or Master Control Program does the job of a load of lesser programs all cluttering up the WorkStart drawer on my machine.

There is so much that this program can do: screen blanking/dimming, crunch patching (so that any selected tasks can load crunched data directly), hotkeys, tool alias, assign preferences (throw away AssignManager), requester timeouts (worth it alone!), promoting screens, floppy no-click, wild star request patch (throw away ReqPatch), alert/guru patching and history, cache font, move solid windows (via Opaque Windows), solid window sizing, cache fonts are just a few examples, there's a load more that I don't have the space to mention.

Although quite a lot of the above features can be carried out by other programs MCP also has a great many features I've never seen before. For example, redirecting icon default tasks to your own programs is excellent! No more strange viewers and every



default tool with #7more#7 in it will then go through your own text viewer. MCP may be a little heavy on memory if you don't want all these things and it does need MUI for the amazing preferences program. However, if you like me, run a load of utilities to enhance your Amiga anyway you simply can't do without MCP.

Available from: Kew It, PO Box 672,
South Croydon, Surrey CR2 9YS.
Tel: 0181 657 1617
Price: £1.00 plus 50p
P+P. Aminet: util/wb/
MCP105r.lha

95%

MagiC64 1.1 commodore 64 emulator

Being a great fan of the old 8-bit classic C64, I've always been disappointed that the Amiga never had a really good C64 emulator - doubly so since the PC does. Christian Beur's *Prodo* turned up and proved to be faithful but amazingly slow even on the most powerful Amiga. *MagiC64* is the latest addition to the genre and is about as faithful as *Prodo* but with considerably more speed and support for the t64 and d64 archives commonly used on the various PC emulators. Perhaps most importantly, it also comes with emulation of the ROMs which means you don't need an (illegal) copy of the C64's ROMs to get going.

On accelerated machines, *MagiC64* can just about play a game at full speed with all the usual effects, by displaying one frame in three. It's a little jerky but at least it can do it. Unfortunately, it needs registering to gain sound support and the ability to save the preferences. Still, at US\$25 it isn't going to break the bank for a working C64 now, is it? If you're a C64 fan, *MagiC64* is definitely worth getting. I'm not happy about the cracked *Uridium* included in the archive though. If you want to stay on the right side of the law use your own old games.

Available from:
SeaSoft, Unit 3, Martello
enterprise centre, Courtwich
Lane, Littlehampton, West
Sussex BN17 7PA. Tel:
01903 850378
Price: 80p
plus 50p P+P.
Aminet:
misc/emu/
MagiC64.lha.

90%

Pro Greyhounds 1.1 racing predictor



Everyone wants to be a winner, and software like this claims to be able to boost one's chances of coming up trumps. It's been written specifically for those who like a flutter on the dogs. Using information from past races (which has to be entered by the user) it does its best to predict the outcome of future races. The interface is very friendly and there's on-line help to get you through any tricky questions. A free version of the program was obtained by sending a blank disk to the address below. If you like it you can then send off for the registered version.

Available from: All Prior, 10 Loyal Park
Heights, Leeds LS7
1DR. Send an SAE
and a blank
disk for a free
evaluation version.

80%

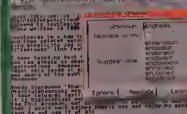
Text Engine 5.0 text editor

Text Engine 5.0 is rightly geared towards simplicity with the onus on printing. It has functions to change the style of selected areas of text (underline, bold, italics etc). However, it doesn't display them, instead choosing to use a funny character to indicate this instead. It also sports a rather nifty spell checker which initially caught my attention. So far so good but that's about the end of Text Engine 5.0's features.

The list of non-features is much longer. You can't mark a portion of a line, only a whole. You can't mark text before the cursor position, only after it. Wordwrap doesn't work unless you've actually typed the entire line. It only opens on the Workbench screen. Cursor fast moves aren't there, instead it prints funny characters. For something sporting such a high version number, you would have thought that it would get some of the more essential basic features right by now.

Available from: SeaSoft, Unit 3, Martello enterprise centre, Courtwick Lane, Littlehampton, West Sussex BN17 7PA. Tel: 01903-850375 Price: £0p plus 50p P+P.

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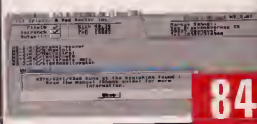
65%

Virus Workshop 5.5 virus checker

Virus checkers are difficult to test. We have no idea of knowing what kind of coverage of current viruses that they afford. So it's only possible to judge the packages by features and just hope that their knowledge of the range of evil-doing viruses is good enough to keep us safe from harm.

Virus Workshop isn't a beautiful and unobtrusive effort like Virus Checker. The GUI doesn't resize, much of the package and the documents are written in broken German/English and it insists on mousing about every OS vector being patched (which quite a lot of PD utilities do). However, it does have everything you'd expect and a little more. Boot block checking and extensive trojan/trank virus checking coupled with use of the XFDmaster library to deconstruct all the files before testing. There's also the ability to scan LHA, LZX and DMS archives for viruses etc. It lacks polish but has the requisite features. For the paranoid and virus prone. It looks like a quality virus checker despite the author using the documentation as a soapbox for his problem with Safe Hex International. It wouldn't hurt to let it scan your Workbench partition every now and again.

Available from: 17 Bit Software, 1st Floor Offices, 2/8 Market Street, Weehfield, West Yorkshire WF1 1DH. Tel: 01924 366 982 Price: £1.00 plus 50p P+P.



84%

Kids Only educational package

At first look the licencware tag on this three disk package for kids seems justified. Lots of smart and colourful graphics and a wide variety of games to play including, Word Search, I-Spy, Pairs, Picture Slide, Dot 2 Dot, Colouring Pad and Music Maker. Each game is colourful, fun looking and educational. However the package is let down by the fact it's unclear what age bracket the games are aimed at. They seem to be aimed at five year olds but the text explaining each of the games is worded in very complex boring English. Another problem was that the package was very prone to hanging for no apparent reason on our office A4000. If these quirks and problems were addressed Kids Only could not only justify the £10 licencware fee but also lay claim to being a top notch commercial program.

Warning: also to download from the Internet. It is a little ones.

Available from: SeaSoft Computing, Unit 3, Martello Enterprise Centre, Courtwick Lane, Littlehampton, West Sussex, BN17 7PA. Tel: 01903 850 375 Price: £10.00 plus 50p P+P.



77%

Iconographics replacement icon package

Icon packages are very much a matter of taste and this package is definitely to mine. Simple clean and colourful icons with no nasty shading are on offer. Installing the package was slightly awkward and it gurned on my A4000/40. I decided to play it safe and test it out on my A3000. Strangely enough, I had to confirm every icon change even on the stock ones. Once you've done this you've got to go through the lengthy process of operating the manual icon updater program using drag 'n' drop. All this is worth it though because you can update your icons choosing from an impressive library of 350 examples.

I like Iconographics but it would help if the author fixed up the installation routines as it even destroyed some original files! There is also a good icon construction utility provided. For updating your Workbench's appearance this is a good alternative to Magic WB.



Available from:
Knew H, PO Box
672, South
Croydon, Surrey
CR2 9YS, Tel:
0161 657 1617
Price: £1.00 plus
50p P+P

88%

EPIC RETAIL'S AMIGA SOFTWARE

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 <p>GFS6-1 CENTREFOLD SQUARES A powerful program for managing your Amiga 128, 500 and 2000 centrefold squares. It can manage up to 1000 centrefold squares. Only £25.00.</p>	 <p>LTP8-4 LANGUAGE TUTOR A powerful program for managing your Amiga 128, 500 and 2000 language tutors. It can manage up to 1000 language tutors. Only £25.00.</p>	 <p>SCF1-3 STUFF COMMODORE FORGOT A powerful program for managing your Amiga 128, 500 and 2000 stuff Commodore forgot. It can manage up to 1000 stuff Commodore forgot. Only £25.00.</p>	 <p>TEX3-1 TEXT ENGINE A powerful program for managing your Amiga 128, 500 and 2000 text engine. It can manage up to 1000 text engine. Only £25.00.</p>
 <p>AEF5-3 EVERY EMULATOR A powerful program for emulating Amiga 128, 500 and 2000. It can emulate up to 1000 Amiga 128, 500 and 2000. Only £25.00.</p>	 <p>UCF5-2 COLOUR CLIP FONTS A powerful program for managing your Amiga 128, 500 and 2000 colour clip fonts. It can manage up to 1000 colour clip fonts. Only £25.00.</p>	 <p>NGS3-2 NEXT GENERATION WB A powerful program for managing your Amiga 128, 500 and 2000 Next Generation WB. It can manage up to 1000 Next Generation WB. Only £25.00.</p>	 <p>BDG10-4 CLASSIC BOARD GAMES A powerful program for managing your Amiga 128, 500 and 2000 classic board games. It can manage up to 1000 classic board games. Only £25.00.</p>
 <p>FNT13-1 FANTASTIC FONTS A powerful program for managing your Amiga 128, 500 and 2000 fantastic fonts. It can manage up to 1000 fantastic fonts. Only £25.00.</p>	 <p>FNT7-3 HOME FINANCE A powerful program for managing your Amiga 128, 500 and 2000 home finance. It can manage up to 1000 home finance. Only £25.00.</p>	 <p>LWP5-1 LOTTERY WINNERS A powerful program for managing your Amiga 128, 500 and 2000 lottery winners. It can manage up to 1000 lottery winners. Only £25.00.</p>	 <p>ARC5-2 ARCADE CLASSICS 2 A powerful program for managing your Amiga 128, 500 and 2000 arcade classics 2. It can manage up to 1000 arcade classics 2. Only £25.00.</p>
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AMIGA

workshop

OCTAMED 5.04 100 ●

Throw away your tuning forks as we delve into OctaMED's power editing tools and get down to some heavy duty music making.

PAGESTREAM 2.2 102 ●

Spell checking problems sorted and making your own business cards are on the agenda as we continue creating our stationary set in Pagestream.

DPaint 104 ●

We show you how to recreate those fancy image manipulation tricks like those ones in the posh magazines like CU.

WIRED WORLD 107 ●

Take a message Miss Jones, or maybe I'll stick with Thor message system to check through my E-Mail and Usenet news.

AMIGA E 110 ●

In the first of our new series of tutorials about our December cover disk, Amiga E, we program our very own handy search text tool.

AUDIOMASTER IV 112 ●

The Options Menu is explored further and there's some top tips on editing courtesy of Tony Horgan.

XMAS COMPO 126 ●

Bitten by the Christmas spirit we've decided to round up a whole bunch of goodies for you to win.

NEXT MONTH 130 ●

CU Amiga Magazine keeps up the pressure as we review more of the top games and technical software and hardware.



Happy Christmas to one and all.

As a special christmas present to CU Amiga readers we've rounded up a s whole host of goodies to be won: Mat Bettinson's old jeans, DOpus T-shirts and Frontier books are just e few of the prizes.

Thers's also the usual helping of tutorials on PageStream, OctaMED, DPaint, and Audiomaster. And to wslcome in the nsw year wa have our first Amiga E tutorial.

Regulars

FAQ 119

Just got an Amiga for Christmas and are not sure what you want to buy for it next? FAQ should answer most of your questions.

Q&A MASTERCLASS 120

Stop seeing double. With a little help from Arexx you can create a duplicate finding tool which will enable you to get rid of those little imposters.

Q+A 122

Tony and Mat sift through all the Christmas cards to get to this month's selection of technical problems that are baffling readers.

BACKCHAT 124

Amiga Technologies come under fire due to the fact that you need to upgrade your new A1200 before you can use the included Scala.

POINTS OF VIEW 128

CU Amiga Magazine look back at the year that was 1995 and tell us exactly what they thought about it and what's to look forward to in 1996.

OctaMED 5.04

PART 3

Chopping and changing notes and sequences to get that perfect choon is easy with OctaMED's power editing tools.

Fasten your seatbelts! You're about to embark upon a whirlwind guided tour of most of OctaMED's editing functions (well, those you're likely to use anyway). We'll start with a look at three important menus. Load up a song before you start, then you can try out the options as you go.

The right track

The most commonly used options from the Track menu (cut, copy, paste and swap) are located at the top. They're OctaMED's answer to wordprocessor style editing, and affect the track currently occupied by the grey cursor. Copy transfers the track's notes to a 'copy buffer'. Cut also clears these notes, Paste overwrites the track with the copy buffer's contents, Swap exchanges the track with the buffer's contents. To swap tracks one and two, for example, move to track one and select Copy. Now move to track two and select Swap. Move back again to track one and select swap once more.

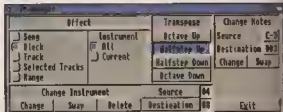
The Block menu also has these



A. The number four button highlights every fourth line and marks out the first in a block.

options which work in just the same way, but affect blocks rather than tracks. Use the Insert New and Append New buttons to add blocks to your song. Append adds after the final block, or Delete to remove the current block if it sounds a bit odd. Set Properties opens a window for renaming a block or changing its dimensions. The Block List is a handy listing of all blocks and their names, click on a block in the list to show that block in the Tracker editor.

The Highlight Options window marks the lines of block in patterns depending on your settings. For example, the button marked 'four' highlights every fourth line, marking out the beat in a normal block. Useful if you're prone to getting lost while entering drum tracks. Insert and Delete Line add and remove lines, slightly more interesting is Expand/Shrink. Expand adds extra lines between notes, spacing them out as if you'd entered the notes with Space on,



A. In the Transpose Window you make lots of alterations to your music. For example, you can change individual notes, here all E-3 notes are being altered to D#3 notes.

while Shmk does the reverse. Split At Cursor splits the block in two, creating a new block whose first line is the current one. Join With Next joins the current with the next block.

Mark 'em up

The Edit menu invites you to cut, copy paste or erase a range of notes. But how does one mark this range? Simply by dragging the left mouse button over the Tracker editor: the range appears in white. Go on, try it! If you mark a range by accident, click on the Tracker editor again to cancel it.

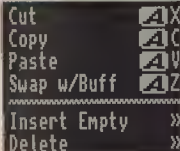
Here's one to try. Select Track menu -> Copy, then move anywhere in the block and select Edit menu -> Paste Range. See the copied track appearing at the cursor? The Block, Track and Edit menus all share the same copy buffer, so selecting Track menu -> Copy is just like marking a range over the whole track and selecting Edit menu -> Copy. In fact, two Edit menu items quickly mark ranges

over whole tracks and blocks, see if you can find them.

The Transpose window is very handy. Load in the Jungleside demo song, then select block 014 and click 'Play Block'. Then in the Transpose window, set the 'effect area' to the current block by clicking Block (far left), and click Halfstep Up. Notice the pitch change? You can change individual notes: all E-3's to D#3's for example, at the top-right corner. Alternatively, notes played by a particular instrument can switch to a different instrument at the bottom of the window. The effect area of these operations is limited by the Affect buttons. Press the Help key for more details.

The often ignored 'programmable keys' (Settings menu) are so handy it's untrue: they allow you to enter a note or group of notes, with player commands, with a single keypress. Select a

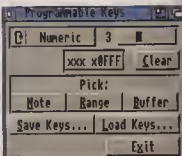
Track



A. The few most commonly used entries in the Track menu. Cut, Copy, Paste and Swap are situated conveniently at the top.



A. To mark a range just drag the left mouse button over the Tracker editor and the range will show up in white as shown here.



A. Save lots of time by using the programmable keys option on they allow you enter a note in group of notes with one keypress.



A Multi-module uses a collection of songs which all use the same notation. Here we are adding the first song of a collection of songs.

definition (0 - 9) with the slider at the window's top-right corner. Then type the required note and/or player command into the area in the middle of the window, by holding the left mouse button over each note or digit and pressing the required key. For example, to type '00FFF', hold the mouse over the third digit and press the F key, similarly for digits 4 and 5. Finally, close the

window and enter the definition in the Tracks editor by pressing Shift-3 for definition 3, for example. Simple! Ah, but there's more. Definition '00FFF' will clear the note and instrument number. So how do you prevent this clearing, leaving the note/instrument number unchanged? Use definition xxx 00FFF and type the 'x's by pressing Return while holding the mouse button.

Song share

A 'multi-module' is a collection of songs all in memory at once and saved in one big file. The songs have one thing in common: they

share the same set of instruments. The multi-module gadgets are on the far left of the main screen's fourth row (in red in the picture). 01/01 means 'you're currently editing the first song of a collection of one' - in other words, there's only one song in memory.

Right, load in Jungelistic, again if needs be, then add a new song by clicking > (to the right of 01/01). Select this new song by clicking > again, then load in Drum Solo (the other demo song) and answer Remap in the requester. Presto! You now have a two-song multi-module. Drum Solo's Instruments actually start at 0C because they've been 'remapped' to avoid clashing with Jungelistic's samples. Use < to return to Jungelistic, or click Sg (left of 02/02) to open the self-explaining Song Selector window.

Ever wished you could enter notes 'on the fly' without painstakingly moving to each

line? Easy, just move the cursor to the required track: select your instrument, click Play Block and start entering.

The D button beside STOP delays playing until you next enter a note, while the NRM cycle gadget on the far right slows playing to half or two-thirds speed a welcome feature for those complicated melodies.

Try switching Chord on (beside Space) move to track D and hold down several notes at once. 'Yep, they've entered across consecutive tracks. If there's a particular track you'd like to prevent Chord from using, click On/Off (beside Chord) so that it shows Select, then click on the appropriate blue track number. These are known as the 'selected tracks', and are also used in Paste To Selected Tracks (Edit menu) and the Transpose window's effected area.

And so the tour is complete! Until next month. ■
Ed Wiles

Playing Sequence Revisited

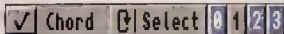
We now properly looked at the Playing Sequence window, did we? As you might already know it's the order in which a song's blocks should be played and is opened using the main screen's Sg button. Adding blocks to the list is a bit fiddly. The best way I've found is to click Bottom (moves the white marker below the sequence), then Insert (duplicates the entry above the white marker), then change the newly-inserted line to the required block number using the two arrows directly below the sequence (or type the number into the numeric box beside the arrows).

You can in fact create more than one playing sequence, by stringing together a number of sub-sections. You can break up a song into, say, two sections, create a sequence for each of these sections, then tell OctaMED to play section one twice, section two once then section one again (or whatever). This sequence is called the Section List, and has its own little window which we'll meet later.

Let's try this, load in Jungelistic and let's remix it into two sections. Open the Playing Sequence, then click Clear (answer Clear in the requester). Only one entry remains, block 000, change it to 008 by typing eight into the box directly below the sequence's bottom-left corner. Now using Bottom and Insert as described before, add the following blocks to the sequence: 010 008 015 013 013 012 012. Name this section something apt (Section one, for example) in the Name box.

To add a new section, click New Sec (bottom-left) then select it using the > button at the bottom. Change the 000 to 014, then close the Playing Sequence because there's a slightly easier way to enter a load of boring old blocks. Oh yes! Open the Block List (Block menu), and reopen the Playing Sequence. Now in the Block List, scroll down to block 014 and click on it. Then click App To Seq. See 014 appear in the Playing Sequence? Do the same for the following blocks: 016 018 001 001 002 002 007 019. Name this section too.

One more thing to do: create the section list. So close both windows and open the Section List with the Sg button (below STOP). Click the Append button three times to add more entries, then click on entry 2 and change it to 002 using the > button. Do the same for entry 3 and we should have 001 002 002 001. Finally, open the Playing Sequence again, drag it downwards slightly to reveal the Play Sg button, and play the song. Marvellous!

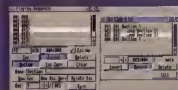


A One Chord to play consecutive tracks. If you don't want one particular track played, click a track and highlight that track number. Simple really.

The Notation Editor

Yee! Music readers everywhere should dance with glee for OctaMED can display music in traditional notation. It's only really suitable for very simple pieces so, if you read music, let's enter the first bar of Mary Had A Little Lamb. Clear the song first, and load that AcGuitar sample featured on October's cover disk. Making sure Edit is off, select Display menu -> Notation Editor.

Click on one of the staves and the pointer turns into a



quaver, with the Notation Control window's Note box briefly displaying the note you clicked. Firstly OctaMED needs to know on which track to enter notes, so click 0 in

the bottom-right row of Select buttons. Now switch Edit on, then holding the left mouse button, move the mouse vertically over the big blue cursor until you find E-3 (bottom line of top staff). You should come across stylone-like noises in the process. Release the mouse button and an E quaver should be perfectly placed.

Repeat all this for the following notes: D-3 C-3 D-3 E-3 E-3 E-3. Before the final E-3, change the quaver into a crotchet by clicking on the crotchet symbol (fourth from right on the window's left). Press left arrow to move back into the first bar and your staves should look something like the screenshot. Don't worry if it doesn't, play the block anyway. Now about adding a harmony? Select track 0 at the bottom-right, then enter G-3 F-3 E-3 F-3 G-3 G-3 G-3. Notice track 0 being ghosted? This is vital if you're to make any sense of what's on the staves. As ever, press Help for more info (it's filed under Misc Screen).

PageStream 2

PART 3

Goodbye spell checking blues and hello to professional-looking business cards as we continue our PageStream stationary set.

This month we take a look at creating a business card as well as a revealing lesson in how to get the spelling checker to work. Some readers have written to me complaining that it doesn't work (it does). Refer to the Spell Checking panel for the solution. Now that we have the spell checking out of the

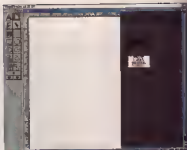
way let's take a look at the creation of a business card.

To start off, create an A4 page by choosing New from the File menu. This page has to be divided up into eight equal parts using the guides function. Make sure you take into account the outside margins your printer requires. With these guides in

place, you now have a set of borders to work within. Business cards come in all shapes and sizes but a good size to start off with is one three and half inches wide by two and a quarter inches high.

Move to the top left-hand side

of the page and create a single card within the guides. This



▲ Using the Guides function, divide your page up into eight sections

Spell Checking

There are two main problems that many of you seem to have when it comes to using the spelling function. One is that the Hyphenation and Spelling module is not loaded when you go to check some text and the second is getting it to check your spelling once the correct module is loaded. To fix the first problem, make sure you have installed the files from the PageStream Extras disk into the drawer where PageStream is located on your hard drive.

If you want to check that you have the correct files loaded, use a file manager to make sure the file 'UKSpelling Dictionary' is in the Spell drawer along with another file called 'English'. If they are, run PageStream. If they not, place the Extras disk in a floppy disk drive and use the hard disk installer to install these and the other files on the hard disk.

▲ The gateway to spelling some text if you have installed PageStream onto your hard drive is to first choose 'Set Hyphenation Rules' from the Global menu

With PageStream up and running, choose 'Set Hyphenation Rules' from the Global menu. Click on the Load button and choose the file 'English'. Click OK and then Save Default and the spell checker is ready to use.

text picking out words it doesn't recognise and letting you add them to a user dictionary or ignore them before moving on to the next unrecognised word.

Those of you using a floppy disk based system should have less trouble as PageStream is already setup. Before you can check a file though,

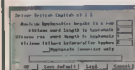
the new dictionary has to be installed. On the disk called PageStream2Disk2 is a drawer called Spell. In here should go the dictionary that you will find in the Spell drawer on the 'PageStream Extras' disk from November's CU Amiga.

Once you have copied the dictionary into the correct drawer, reset your Amiga with PageStream2 Disk1 in the internal disk drive and when Workbench appears, run PageStream. Place some text on the page as outlined above, highlight it by pressing Select All (Right

Amiga-A) and choose 'Batch Spell Checking' from the text menu. The only difficulty you will find is that checking the text is very slow. This is because the dictionary is on a floppy disk, which obviously takes much longer to access than a hard drive. Why not do yourself a favour and get yourself a hard drive for Christmas? It will make life easier.



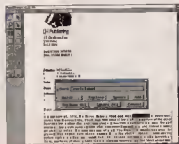
▲ After making sure you file UKSpelling Dictionary is in place click on English in select it and then OK. Then click on 'Save Default' in the Hyphenation Rules' panel.



▲ Click on the button called Load

Checking your text

The next thing you will want to do is make sure it works. To do this, use the text column tool to draw a box and then type out some text or, if you're lazy like me, import a text file from disk. With the text tool still selected, highlight some text by dragging the I-Beam over your text or choose 'Select All'. Now choose 'Batch Spell Checking' from the Text menu. The spell checker will now go through your



▲ You can now go through and check your text by first highlighting it and then choosing 'Batch Spell Checking' from the Text menu.

Speeding Things Up

One of the things you may have noticed in the last few tutorials is how long it takes for the screen to redraw when you magnify an area of the page containing a bitmap graphic. This is easily fixed by turning off the Show Pictures option from the View menu. If this is ticked, then all the pictures in your document will be displayed, but if you select it and turn this off (no tick next to it), then the next time you refresh the screen by making a change or by clicking on a scroll bar, you will see that all the pictures are hidden from view.

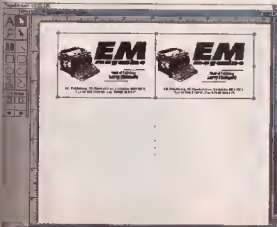
No Dictionary? For those that missed the November issue of CU Amiga, there was a dictionary on the AudioMaster cover disk and CD-ROM. See that issue for full instructions on how to install the items for use with PageStream.



▲ Create a single card in the top left corner of the page and place a border around it to match where the guides are. If you have Snap To Grid on, this has to be done manually.



▲ Ring a net around the objects and then choose Group from the Object menu.



▲ Duplicate this group and move it into position next to the first card. Now group both these cards so they can be treated like one object.

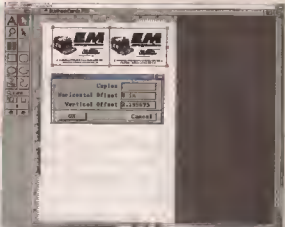
would normally be a mixture of text pictures and structured graphics drawn using PageStream's drawing tools.

With the Pointer tool selected, drag a net around the elements making up the card. Now choose Group from the Object menu. This group can be moved around as if it was one object. To help with the duplication, create a box the size of the card. Make

sure Snap to Grid is on.

Once you have grouped one card, make a clone of it by selecting it so it's active and then press Shift-Right-Amiga-D. Move the second group into position alongside the first one. Group both cards and with that group selected, press 'Right-Amiga-D'. You should have the 'Duplicate Objects' panel visible on-screen.

Four more rows of cards are



▲ Check Replicate and create another four rows with the vertical offset being equal to the height of the cards. Make sure Horizontal is set to 0.

required to complete the page, so the number four is typed into the Copies text gadget. The Vertical offset is set so the figure is equal to the height of a single card. The Horizontal offset is set to zero. To find out how high a single card is, make sure all the elements are ungrouped and select the border that surrounds one of the two cards. Press Right-Amiga-E and in the panel that appears will be all the coordinates for that box.

Having entered all that information into the Duplicate Object panel, click OK and PageStream will create the rest of your cards.



▲ Because screen drawing can be slow with pictures on the page, choose View/Show Pictures to turn them off so where you just refresh your screen, all the pictures will be visible.



▲ The border around the images is not necessary anymore and so can be deleted. Before you do this, you will need to select all the cards and choose Ungroup from the Object menu. Now create a box that you desire, to make sure that when selecting a border to delete, it is only the border and not a group of elements.

for you. As you can see, once you have one card, creating the rest is easy thanks to the Duplicate Object function. ■
Larry Hickmott



▲ To get the height of your card, select the frame and then choose Object/Get Coordinates. The figure in the right gadget will tell you how high a single card is.

Want to know more?

Don't forget these tutorials are written for your benefit. I have received a number of letters saying how much help they but there must be plenty more of you who want to learn new things about this first-class desktop publishing program. If so, write to me at LH Publishing, 13 Garsfield Ave, Bletchley MK2 3DH or E-Mail me at larry@em.powernet.co.uk and we'll try and squeeze your queries into the following tutorials in CU Amiga.

Graphics Masterclass

Deluxe Paint

You don't need expensive photo retouching hardware and software for image manipulation; if you've got the time, your Amiga and DPaint you have the power to transform all; including creepy crawlies.

Look at any consumer magazine and you'll see it's full of eye-catching pictures. One of the most common ways to make images look more interesting is to give them a shadowy 3D type effect which gives the impression that the picture is floating off the screen or page. Magazines use all kinds of expensive hardware and software to manipulate images in this way. But you can do it with your Amiga and turn it into a picture editing desk once you know how to simulate the techniques which would have, otherwise, cost thousands to produce. For this tutorial we'll be looking at how to produce a 3D and keyhole blend effects.

We can do it

Many high-end high-cost drawing packages have graduated shadow options. DPaint, however, doesn't have these but it does have the techniques to help you



A Tapering the image from the background angle can and patience, especially in this example where the colour of the sand and the scorpion are very similar. Use magnification to see detail on you fill areas with the background colour using brushed fill mode.

simulate similar and all kinds of other special effects.

I chose a complex shape to help show off this. The original image has the scorpion posing on a sandy background with its stinger and claws extended. The finished version sees the scorpion on a white background with a shadowy effect behind him.

To achieve this effect I found it easier to blank out the background around the scorpion rather than use DPaint's lasso cut out option. This is a lot easier to do when you are working with complex shapes. To get rid of the background behind the scorpion I used the freehand fill tool. Using black as the colour I started on the larger areas first. Then for the delicate areas



A The key-hole chop now looks realistic enough to pop out of the screen and do scorpion type things.

surrounding the edges of the scorpion I used Magnification to ensure pixel-perfect accuracy. The single dot paint brush is handy to use when you want to make sure all that's on screen is the final image you want with the extraneous pixels removed.

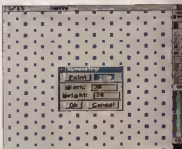
For the shadow effect I cut out the creature as a brush and saved it (always a wise idea after any amount of work). I then turned this brush into a solid



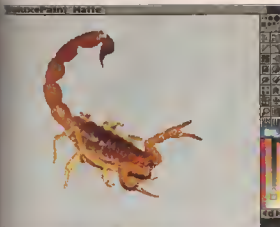
A An enlargement of the shadow showing the technique of anti-aliasing and smoothing on the hard-edges of the image.



A The low-contrast just add a simple frame and the 3D effect you were striving for... but this is only the start.



A Using the Freehand tool you can create the pattern on the whole screen. This will be the basis of our rather scary two image transition - hehehe!



A. Here's the critic in all his glory — an articulate shape, but with the effort and patience needed to separate it from its surroundings. He is easier to see, and much more aware and menacing now.

matte' of colour by pressing key 2, and chose a mid gray as foreground painting colour.

Next I turned on high Anti-aliasing from the Effect menu, and painted down the grey silhouette. This particular painting technique gives the edges of the image a soft, graduated look and avoids stark colour transitions. To enhance this effect I used a medium round brush in Smooth mode to edge around the image and further soften, or 'feather' the picture, which has now become our graduated shadow.

3D backdrop

Creating a nice 3D look to the picture was a simple matter of loading the original brush back in and offsetting the scorpion slightly to the top and right.

You'll notice that part of the text has been given a 3D look using a technique called **bas relief**. We've covered this method before, but for those of you are new to concept it's a case of using the same text brush to add dark light and

background colours on top of each other, slightly moving the brush a pixel each time before painting.

Peephole spy

The scorpion image was only half the story; it's one of two graphics needed for an animated title sequence. And our second tutorial takes us again into the realms of simulating a popular high-end transition, a keyhole blend.

This effect works by gradually revealing one image "through" another as symmetrical holes enlarge, eating away at the prime image while revealing another one underneath. It's called keyhole because of its ancestry in the old silent movies people were led through an on-screen door keyhole to spy on what was happening inside a room. The keyhole would enlarge to expand the interior scene onto the whole screen.

Apart from our two images – the initial one loaded into the main drawing screen, the secondary in the Spare area – all we

need is a full-screen brush. You can have any repetitive shape for this. I chose a simple example: small rectangles. To speed the job along I used *DPaint's* symmetry tool with *Tile* active. With this tool, anything you draw on screen will be repeated in an invisible grid; draw one box, a score appears on screen. By drawing two sizes of rectangle in different

pieces: the screen fills with a regular pattern. The whole screen is cut out as a brush and saved. Now the main and secondary images have to be loaded in.

TIP: If the images do not share the same palette you have to convert them. The quickest way to do this is load the primary image, then load the secondary as a brush (provided you have the RAM of course). Now from the Colour pull-down menu select Brush/Remap and let *DPaint* try to give the brush image the same colours as the main image. You can now either paste down the full-screen image brush into the Sprite screen or save it and load it in later.

Creepy crawly

We're now at the starting point of the enigma: the scorpion is on the main screen, the spare screen holds the tarantula image which will be revealed and the current brush is the full-screen symmetrical image of small rectangles with a transparent background.

I use 20 frames for a short-burst animation effect such as this, so from the Main screen select Anm/frames and set the number to 20 (or whatever you prefer: the larger the number, the longer the sequence will last).

Turn on the Gnd function. This means your symmetry brush will be locked into position, which is vital as we have to accomplish the effect manually and the brush shouldn't move between frames.

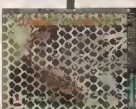
You should have frame 1 of 20 showing now. Advance a frame (key 2) so we can begin the effect (the first frame should show just the first picture). From the Mode menu, select RubThru, the symmetry brush will show the Spare picture 'through' the main image. It's quite slow because of the amount of work the old Amiga is doing, but bear with it!

Once the brush is in position, click on the left button; the see-through portions of image 2 will be printed onto the main screen. Now repeat the following steps until you reach frame 19.

- 1 Press **O** to outline the symmetry brush. An extra pixel's worth of colour is added to the rectangles, effectively enlarging the see-through area.
- 2 Press key **2** to advance to the next frame in the sequence.
- 3 Left click the mouse.
- 4 Go to step one. When you get to frame 19, your brush should

show almost all of the secondary image. If not, you need to press the Outline key a couple of times in between frames. On frame 20 copy the spare screen image onto that frame, so the last frame in the animation shows the whole of the Spare screen image – in our example from scorpion to tauntful.

That's the heart of the effect.



A. From acropetal to basal: this sequence shows how the Pahlitzs made and a gradually enlarging symmetrical break allows more of the alternate image to show as the animation progresses.



▲ **Qoh.** a nasty spider. Watch how our scorpions transform into one of these in just a few steps



A. Why did the Fab Four cross the road? It's mainly an album of covers. Here's the original Abbey Road album cover. You can create moving and powerful images using your Amiga.



B. Here's the same image with John Lennon removed. Can't see the join, can you? And so John Lennon is really fast here.

but it leads on to exciting possibilities because you can use any shape as your see-through brush - silhouettes of countries, text, faces. This core effect can be used over and over to give you just the transition you need for some eye-catching animations.

The fab three

Graphics are great for making a point. One image can tell a story, ask questions and generally make you sit back and take notice. I think my piece of electronic picture editing of the Beatles does just that.

The starting image should be instantly recognisable to most people familiar with the Beatles. It's the cover from the band's Abbey Road album, with the group standing across a zebra

crossing on Abbey Road. Using some fancy tricks, I removed John Lennon from the image. I think that there's now an uneasiness to the picture and the Amiga is such a powerful image engine that it's virtually impossible to see where he was in the picture. How's it done then?

It's all a case of using what's already available in the picture. You can't choose colours and paint realistic-looking portions

of the road or pavement, instead you utilise the power of computer art and cut out small brushes from the picture and paint with them. The trick here is to use representative samples of the area to be duplicated, and once painted down, use DPaint's Smear and Smooth modes to integrate your new work into the original. If you use the lasso cut to clip a brush you avoid the awkwardness of standard rectangular brushes.

In this example here's exactly what I did. Knowing that a brush of John would come in useful for other projects (as yet undreamed of!) I cut him out of the original in exactly the same way as the scorpion from the earlier example - by nibbling out the background to leave just him.

Using his image as a brush it



A. And here are the images in do-joining the picture. The trick is to preserve with the background using DPaint's array of drawing tools. The article explains exactly how you can do it.

was then simple to re-load the original picture of the album cover, and just right-click his image on top of the picture blanking him out totally. It was then just a case of using clipped brushes from the background area to fill in where he was. The road was tricky in that it contains different textures across its width, but care and magnification mode helped.

Provided you have enough background material to work with, this should apply to any photographic removal you might want to do.

As for uses, apart from the

striking single image I think we have here you could animate the whole thing by having John come to life and stride off the screen, leaving the background as it would appear.

Animating the character would just be a case of working on the legs, bending and flexing them over four or five frames to simulate movement.

Alternatively to create another moving image you could simply have him fade away using DPaint's superb Translucency option, increasing the value of transparency as the animation progresses. ■

Peter Lee

How The Others Do It

Removing sections of a picture can be done just as well with other paint and image processing software. Here's how you could achieve the same effect with either Photogenics or Image FX.

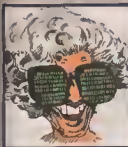
Photogenics: The 'Closer' tool from the Drawing Modes menu is the key. This allows you to clone as areas of the picture by drawing over the part you want to replace. Select this from the Modes window then click on the Mode Options button.

Next you need to move the pointer to the 'source' area of the image (the part you want to duplicate) and then hold down the left mouse button.

Now move the pointer to the 'destination' part of the picture (the part you want to replace). When you draw over the destination area, the graphics from the source area will now appear.

Image FX: With Image FX the process is called 'Pantograph'. This was covered in part five of the Image FX tutorial from the November 1995 issue. Here it is again in brief...

Select Pantograph from the drawing options menu, move the pointer to the source area of the image then hold down the ALT key and click the left mouse button. Now when you pass over another part of the picture, the corresponding graphics will appear from the source area.



Net God speaks

Why is it that so many Amiga users who surf the 'net use PCs to do it? I've been criticised for suggesting that Amiga Internet software (PD) is not up to scratch but that wasn't my intention at all. In fact instead of having a moan about what we haven't got, I'd like to take the festive season as a cue to draw attention to what we do have. The Amiga has absolutely brilliant Internet connectivity. Every area of 'net usage is covered and often with many top competing shareware Internet clients in the same stakes. News, Mail, IRC clients abound with each being the equal of what's available on the PC. Even top class WWW browsers, for a long time a weakness, are in the works at last. Once that dial up link is made, an Amiga Internet user can be delivering E-Mail, skurping news, logged on to a couple of IRC channels and IPioning a mate all simultaneously. The Amiga's usual seamless Multitasking really comes into its own on the net. So if you're using that 'ol' old DOS box for your 'net stuff, why not spend some effort setting up the Amiga side of things. The PC can then be left to hold the door open for Santa. Windows should cope with that.

Surf's up!

Amiga Technologies goes bilingual, Demon gives one hundred percent and AmigaCafe goes Effnet. Just some of the stirrings on the internet as reported by our undercover reporter Net God.

News

Demon's 100% local coverage

Demon Internet Services are the first Internet provider in the UK to achieve 100% UK local call coverage. This means that it's possible to dial into Demon from anywhere in the UK at the cost of a local call. This aspect makes Demon yet more attractive especially for Amiga users for which Demon provide unparalleled support. Recent criticisms of their performance (bottom ranking in the Internet Magazine provider trials) are apparently going to be addressed shortly with added investment stemming from the cash generated from their limited issue of shares. For more information call Demon on 0161 371 3100.

Thor 2.2 released

The Amiga's premier integrated News and E-Mail browsing software has received a major update. Split into three separate archives, Thor 2.2 can be found on all Amnet mirrors in the communal directory 'thor22_main' that contains the essential bits for all types of networks. 'thor22_net' contains the Internet modules necessary to get Thor to interface with your Internet service provider. Finally 'thor22_bbs' holds the key to getting Thor to function as a FidoNet type browser for BBSes etc. Check out the tutorial on page 108 to find out more.

AT WWW page goes English

Amiga Technologies have taken some flack from Internet users because their WWW site has only been in German. A strange move given the global nature of the Internet. Fortunately, the site now incorporates English and German on the same set of pages. In the English version there is a guide to



the Amiga product range, Patro Tyschenko's Video Testar Expo speech and the press release containing the announcement of the move to PowerPC 604 CPUs. The site may be fairly drab graphics wise but serves the purpose of being an outlet for Amiga Technologies statements to the public. Try it yourself at <http://www.amigade.de>

This move comes after Amiga Technologies announcement at the developers conference in London earlier this year, that developer support would be carried out via the Internet rather than CIX as Commodore used to do.

Zeus detail correction

Unfortunately an earlier Surfs Up mention of the Zeus Pro release had the wrong contact details. Recapping, Zeus Pro is a new UK developed BBS host package with many powerful features not found anywhere else such as Ajax menus, Hydra, RIP, Fast mail tossing, Internet support and full GUI configuration editing. The

correct details to get in touch with the Zeus authors is as thus FidoNet 2 441/58 0, AmigaNet 38 139/22 0, E-mail zeus@ms-tri.co.uk, BBS' spa. 58 01273 474352 and WWW <http://www.ms-tri.co.uk/zeus/>. If you are thinking about setting up a BBS system or upgrading from your existing software, you'd be well advised to drop the Zeus team a line.

3D objects for Amnet

Urban Mueller, boss of the Amnet, was very busy at Computer 95 in Cologne, Germany but he took time out to talk when I caught up with him to ask what his plans were for the Amnet. Urban said, 'At the moment we have no 3D objects for rendering packages, which is a shame for an Amiga FTP archive. I plan to upload a few hundred megabytes of objects in a common Amiga format to get it started'. The format was yet to be decided but Urban was seen dealing with Maxon to obtain a copy of their excellent Magic Link package to perform the conversions. Good news for commo connected render-heads, I'm sure you'll agree.

#AmigaCafe goes Effnet

The alternative IRC channel for Amiga users, #AmigaCafe has now obtained a 'bot' that gets the channel from Effnet to Undernet meaning you can use other type of server. #AmigaCafe was set up to provide an alternative for the Effnet #Amiga channel. It's intended to provide a friendly meeting place for Amiga users without any of the antagonism that often occurs in #Amiga. Drop in and see for yourself.

Wired World

PART 6 The E-Mail and Usenet News browser Thor comes under the spotlight this month.

While steps are being taken to make the Web more interactive, you still can't beat Usenet or even good old fashioned BBSes for interactive communication. Whether you just want to chat about general topics or ask a technical question, a message-oriented system such as Usenet or Fidonet is what you need and, thankfully, the Amiga is well served in the area of message reading software.

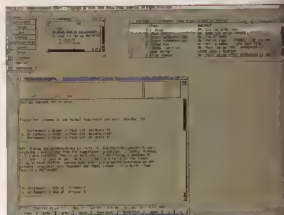
Thor 2.2 is best of this type of software around. Written by the Norwegian company Ultime Thule Software (thor@stud6.cs.uio.no) it is an advanced multi-format off-line reader, supporting the QWK, Fido, UUCP, SOUP,

Bluewave, Omen, ABBS, MBBS and Hppo (BBBS) message formats. It will also handle TCP-connections with NNTP, SMTP and POP3.*

Where from?

You can download *Thor* from any Aminet site on the Internet (in the comp.mail directory). Downloading is simple enough, as *Thor* is made up of three parts, one has the main program, another the Internet support and a third has the modules for the other mail formats it supports. Once you have downloaded these you need only extract the main archive. Handily, in spite of all its features it still only takes up 2.5Mb; you won't need to free up too much space on your hard drive.

With the QWK and Fido systems, you must figure out how to download the mail bundles yourself (using something like *Trapdoor* for Fido, and a simple ZModem download for QWK). However, TCP already has a handy little utility called *ConnectThor*. More about this later.



▲ To read a message, once you have *Thor* installed, all you have to do is double click on the header.

How's it work?

How *Thor* operates is simple. It organises its message base into systems. Each source of mail has to be assigned a system and you must configure each system before you can read messages. For instance, you may get Internet E-Mail and Usenet news from your Internet provider, receive Fidonet echoes from a BBS meiler* or via a "QWK door". To do this, you set up a system for TCP/IP, QWK and one for Fidonet. For the purposes of this tutorial I'll be showing you how to set it up to read mail and Usenet news.

Up and running

To run *Thor* you must configure at least one system. When you try to run it *Thor* automatically loads the configuration program. So, in order to create our mail reading and Usenet news, select Global to bring up another window with some more options in it. Click on Database Options to set a limit on the amount of messages *Thor* will store. You can even choose an

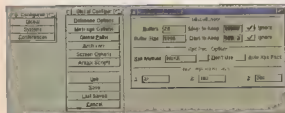
XPK compression method to save space. Remember, a compressed message base will be slower. If you want to use compression and have the XPK (eXternal Packer) libraries installed in 'LIBS' Compressors, you can type in the four-letter name of the system you want to use, otherwise select the "Don't Use" check box.

While *Thor* comes with a basic text editor built-in, most people will want to use their own preferred one. This can be done by going into the Message Options window and changing the Editor cycle gadget to External and selecting the editor you wish to use using the file requester. Bear in mind that if you are using an editor that automatically detaches itself from the CLI such as *Cygwin Ed*, you must disable this feature.

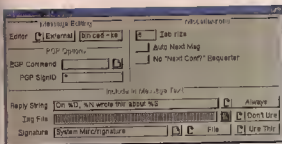
Other options in this window include a signature (a string of text or file that is added to the end of each of your outgoing messages), a tag file and a reply string. Thankfully *Thor* has



▲ And to the beginning... there was Thor.



▲ In the database configuration screen you can control the amount of messages *Thor* will store.



▲ Segments and reply strings are easily added to your messages in the Message option window

excellent on-line help. If you are baffled by any part of the program, simply press the Help key and AmigaGuide help relevant to the currently selected window will appear. Very handy.

Once you have the Message Options configured, the next important thing is to save your configuration. You may want to tinker with the 'Screen Options', where you can select what screen mode and fonts you want to use as well as an optional backdrop picture (just like Workbench) but it isn't essential to getting your mail read.

With your config saved, move onto the Systems configuration. Click on the New button and give it a name, something like 'Internet' or 'Demon' is fine. Then select TCP from the list on the left, followed by Type Options. This is where you fill in the particulars of your setup making sure that you include your IP address, your POP (Post Office Protocol) mail server and your NNTP (Network News Transfer Protocol) news server. Eg: news.demon.co.uk. Once these are entered, click on Save. Next, fill in your personal details in the User Info window and then close all the configuration windows.

Make the news

We still have one more thing to do before you are ready to go online and download your news. Double-click on Internet (or whatever you called the system) in the Startup Window. You will now be presented with a blank message window. This is OK, as we haven't received any news yet. From the Windows menu, select Dock. This will open a handy toolbar like dock window, select Get Confist from this window. This tells Thor that you want to download a list of all the newsgroups next time you go online. It can take a long time, but you only have to do it once. Now quit Thor since we are

ready to go online and retrieve some news.

Linking up

After starting *AmiNet* and linking up to the net, load up *ConnectThor* (in the *Thor* directory). This is a program that manages the transfer of mail and news from your Internet provider's machine to *Thor*'s message base. Click on Send Events. This normally sends any mail or news you have written to the relevant server.

Seeing as we haven't entered anything yet, you might wonder what we are doing this for. Well, *Thor* also treats things like the request to download the newsgroup list as an event, so when we click on this, *ConnectThor* will contact the news server and download the newsgroup list.

After the download has finished, click on Browse News. This brings up another window, where you select exactly what articles in which newsgroups you want to download. First select a newsgroup by clicking on Group List and double-clicking on the group you want in the window that opens. Pick something like comp.sys.amiga.misc, as this is bound to have a good few articles in it. *ConnectThor* tells you that it has joined the group, now we must get the article headers from the News server so click on Get Headers. After a few seconds a list of all the articles in the newsgroup, detailing size, subject, and author, will fill the main part of the window. If there is an article you fancy reading, just click on it. Repeat this for all the articles you want to read, scrolling through the list if necessary.

When you've selected all you are interested in, click on Get Articles. Repeat this procedure for any other groups you might be interested in. If this is a bit tedious having to manually select each article you want to read, then take heart, as it is possible to subscribe to a group. Then you simply click

on Get News in *ConnectThor*'s main window. More on this later.

Now when you load *Thor* again and select the Internet system, you will be brought into the first message in the first group in the list. If you have a big enough screen, you can also open the Message list and Conference list windows from the Window menu for easy navigation between articles.

If you want to become a regular reader of group, and want to download all the new articles in it each time you go online, then simply select Join Conf from the Event Commands menu. For batch downloading of all the conferences you have joined, you simply click on Get News in *ConnectThor*'s main window, as mentioned above.

Aræx friendly

What really makes *Thor* shine, though, is its excellent *Aræx* support. Most of us don't have to time to tinker around with scripts

much, so the feature would be wasted except *Thor* comes with a wide selection of well-commented scripts that enhance an already excellent package.

One of my favourite *Aræx* scripts is SortMail. Many *Aræx* netters are on the Amnet daily mailing list (which sends you a list of the new uploads to Amnet each day). SortMail automatically adds Amnet's files to a database and undecodes any other binary mailing lists. If you read a lot of the binary newsgroups, it can be a pain saving out each article separately and undecoding it by hand. With *Thor*, you simply press a function key, and the article is decoded to a directory of your choice. The script can be made unarchive any resulting archive or display a decoded picture. This is right up there with what the best of the Windows and Macintosh news readers can do and it is heartening to see such quality in an Amiga application. ■

Colin Dalton

Killing twits

The Kill/Emphase Database is one of *Thor*'s more advanced features. This is like a kill file or twit list, but with a difference. You can choose to filter out messages to or from selected people, or messages with a certain subject, or even messages containing certain text strings! The opposite is also true. You can emphasize messages so that the words "**** This is an Urgent Message ****" will appear at the top of such messages. They can also be set to stay in the message base longer than normal messages, they don't get deleted at purge time. Very Handy.



▲ ConnectThor is an AmigaNet utility that handles the transfer of mail and news from your internet account to Thor's message base. It is available with TCP



▲ Thor's on the news tonight. Amiga in France? Sorry Bello? Yes I think I'd download those two messages, they look interesting

Amiga E Tutorial

PART 1

In the first of a three-part tutorial on Amiga E, our excellent December cover disk, we begin our quest to create a rather handy text finding tool.

Have you ever found yourself endlessly searching for a vital piece of information in amongst a huge directory full of files? And have you thought that it would be good if you could get your Amiga to search all the files for a certain line of text? Well, if you hang around for long enough you might be able to do just that.

On last month's cover disk there was a full version of the powerful programming language Amiga E accompanied by a beginner's guide. Hopefully, if you've followed the manual you should have picked up the basics of the language. We'll now jump straight in at the deep end and over the next three tutorials you will learn how to create a text finding tool, and maybe learn a bit

about some of the features of Amiga E in the process.

I've gone all GUI

First of all, the text finding tool we're going to build needs a GUI. This would normally be quite a complex task, but luckily Amiga E comes with an excellent module called *EasyGUI*. This will simplify the job enormously and will be the focus of this first tutorial.

EasyGUI (written by Wouter, the author of *Amiga E*) can be found in the 'tools' directory of EModules, 'disk' documentation and example files can be found in the 'Src2/Tools/ EasyGUI' directory on the extras disk.

The first thing to be aware of is that *EasyGUI* uses the GadTools library, so will only work with Workbench 2.1 and above. Sorry to all you die-hard Workbench 1.3 users, but you should still find the discussions of various E features useful and in the later tutorials we will be examining some of the standard Amiga system functions which apply to 1.3 users, too.

To construct a GUI using *EasyGUI*, you specify the relative layout of the gadgets and groups of gadgets using lists (lists are described starting at page 92 of the *Amiga E Guide*). We'll basically need two text gadgets for entering the search text and the starting directory. And then we might need some gadgets for various options end, of course, we'll need some way of displaying the results of the search.

Simple start

To start off we'll make a very simple GUI that just has the basic elements: two text gadgets

and the command buttons. The resulting GUI can be resized and adapts to the user's preferred font. See **example 1**.

The first line restricts the program to work under V37 or above of KickStart (which translates to Workbench 2.04 or above). If you try to run the program under a lesser version then it will simply terminate immediately.

The second line includes the *EasyGUI* module so that its definitions can be used in the program. Several things being used in the program come from this module. They are the function 'easygui' and the constants 'EOROWS', 'STR', 'BAR' and 'BUTTON'.

The 'main' procedure is where the program starts. All it does is call the 'easygui' function with two arguments: the title of the GUI window and the description of the GUI as a list. The first entry in the list is 'EOROWS' and this defines a gadget group and arranges the following list of gadgets or groups of gadgets in rows, one on top of the other. The 'EG-' prefix means that the width of each row will be made equal.

The first entry in the 'EOROWS' group is another list which describes a text gadget. This is the gadget which will hold the search text.

[STR, AVAL, 'Find:', findstr, MAXSTR, 10]

The 'STR' defines this gadget to be a text entry gadget (something you can type into). The next entry is 'AVAL', which is a constant in place of an action function. A proper action function will be added soon. The string 'Find:' is a label which will be placed to the left of the gadget to identify it to the user. The text gadget will take its initial value from the next entry, the E-string 'findstr' and it will automatically update this when the user hits return or presses the TAB key in this gadget.

To ensure that none of the text entered into the gadget is lost, the maximum number of characters that can be typed is set to the same as the size of the E-string, 'MAXSTR'. Finally, the relative width of the gadget is set to ten by

Jargon Busters

ACTION FUNCTION The name for functions when an *EasyGUI* gadget is activated either by clicking on it (in the case of buttons and the like) or by hitting return or TAB in it (text/number entry gadgets).

EXCEPTION Usually an error message. When an error occurs, program control is transferred immediately to the nearest exception handler, which may allow the program to continue or eventually terminate it.

GADGET An area of a window that you can click on using the mouse or type in using the keyboard. There's usually an image or some text which symbolises the action of the object. A button and a scrolling list are both gadgets.

GUI (Proseoused 'goosey') Graphical User Interface. A collection of buttons and various other gadgets which serve to simplify interaction with a program.

LIST A sequence of 'LONG' typed values (which can include pointers, so you can have lists of lists, lists of strings, etc.)

MODULE The E equivalent of a C include or object file. A module may contain definitions of constants, procedures and E objects.

Example 1

```
OPT OVERVERSION=37
MODULE 'tools/easygui'
CONST AVAL=0, MAXSTR=250
DEF findstr[MAXSTR]:STRING, dirstr[MAXSTR]:STRING
PROC main()
    easygui('Find string 1.0',
        [EOROWS,
            [STR, AVAL, 'Find:', findstr, MAXSTR, 10],
            [STR, AVAL, 'Directory:', dirstr, MAXSTR, 10],
            [BAR],
            [BUTTON, AVAL, 'GO!'],
            [BUTTON, AVAL, 'Quit']
        ])
    WriteP('Find: "%s", Directory: "%s\n", findstr, dirstr)
ENDPROC
```


the last entry in the list (this size is initially in units of the height of the font used in the GUI)

Back to the `EQROWS` group, the next gadget is a `'STR'` gadget to hold the starting directory in the `E_string` 'dirstr'. Then there is a `'BAR'` which is a very simple gadget, it's just a line and in this case it's a horizontal line because it's in an `'EQROWS'` group. This is used to visually separate different collections of gadgets. In our example, it separates the text entry gadgets from the command buttons.

```
[BUTTON,AVAL,'GO!'],
```

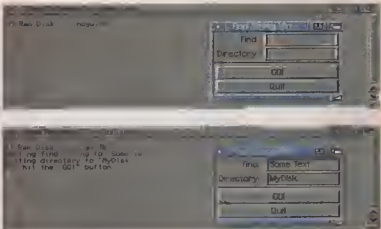
This describes a simple button, which has the text `'GO!'` on it. Again, the constant `AVAL` is used in place of an action function for now. The `'Quit'` button is similar.

The final statement is executed after the GUI is closed. It prints out the contents of the `E_string` used to hold the search text and directory. Because of the lack of action functions in this example, any activation of a gadget will close the GUI. (This includes pressing return or TAB in the text entry gadgets.)

Adding actions

For the final part of this tutorial we will add some action functions to the GUI. These allow us to take real control and act on the user's input. See example 2.

For the two text gadgets we need to supply an action function simply to stop the GUI closing when these gadgets are activated but



A Here we are on our way to creating our text finding tool. It's easy when you know how

for the command buttons we want to do some useful work as part of the action function.

The text gadget action functions (like `'s.find'`) will be called with two arguments 'info' (an identification of the GUI to which the gadget belongs) and 'str' (the new value of the text gadget). You do not need to copy the new string to 'findstr' since this will be done automatically. Generally, you will

completely ignore the activation of a text gadget using an action function like this:

```
PAOC s_ignores(info, str) IS 0
```

A button's action function (like `'b.go'`) will be called with just an 'info' argument. The 'info' arguments are of no interest in this example, since we have only GUI.

After an action function has successfully terminated the GUI accepts the next user input (i.e., it does not close like the first version which used `AVAL` constants). If you want to make the GUI close from an action function you must raise an exception. Exceptions are a very powerful feature of *Amiga E* and are discussed in Chapter 13 of the *E Reference Manual* (*E guide*) in the 'Docs' directory on the main *Amiga E* disk).

The `'b.quit'` function raises a non-fatal (i.e., zero) exception which is handled by *EasyGUI*. This makes the `'Quit'` button work as you might expect. The `'b.go'` function, on the other hand, does not raise an exception so it does not close the GUI.

Showing results

To hold the results of the search it would be nice to have a scrolling list. This is a `'LISTV'` gadget in *EasyGUI*, and the updated call to `'easygui'` is shown below. At present we have no action function and no list to display, so these entries are `AVAL` and `NIL` respectively. The relative size of the list is 25 units wide by 10 units list. See example 3. The other new gadget that has been used is the `'TEXT'` gadget which is used to display a text label. In the example it is used to label the list as being a 'Results' list. ■

Jason Hulac

```
Example 2
OPT OVERVIEW=27
MODULE 'tools/easygui'
CONST AVAL=0, BARSTR=250
DEF findstr(MAXSTR):STRING, dirstr(MAXSTR):STRING
PROC main()
  easygui('Find string 1.0b',
    [EQROWS,
      [STR,(s_find),'Find',findstr,MAXSTR,10],
      [STR,(s_dir),'Directory',dirstr,MAXSTR,10],
      [BAR],
      [BUTTON,(b_go),'GO!'],
      [BUTTON,(b_quit),'Quit']
    ])
  WriteP('\nFind: "%s", Directory: "%s"\n', findstr, dirstr)
ENDPROC
PROC s_find(info, str) IS show('find string', str)
PROC s_dir(info, str) IS show('directory', str)
PROC b_go(info) IS WriteP('You hit the "GO!" button\n')
PROC b_quit(info)
  WriteP('You hit the "Quit" button\n')
  Raise()
ENDPROC
PROC show(s, t) IS WriteP('Setting %s to "%s"\n', s, t)
```

```
Example 3
easygui('Find String 1.0c',
  [EQROWS,
    [STR,(s_find),'Find',findstr,MAXSTR,10],
    [STR,(s_dir),'Directory',dirstr,MAXSTR,10],
    [BAR],
    [TEXT,'Results:',NIL,FALSE,5],
    [LISTV,AVAL,'',25,10,NIL,FALSE,0,0],
    [BAR],
    [BUTTON,(b_go),'GO!'],
    [BUTTON,(b_quit),'Quit']
  ])
1)
```

Next Month

Now we have a GUI we need to put some guts behind it. We'll start adding the necessary code to make it functional. This will involve file IO, string handling and DOS library functions.

SOUND LAB

AudioMaster IV

PART
2

Keeping your options open was never easier. All you need is a little more knowledge of our excellent November '95 cover disk.

M

Y mother always says that it's best to keep your options open and she's right because with the likes of *AudioMaster* you're spoilt for choice when it comes to options. Here's what's available.

Oversampling

This is a very clever trick used to enhance the playback quality of samples recorded at low rates. A 'low rate' in this case could be considered anything below 16KHz. Below this rate samples start to develop an unpleasant ringing overtone. This is caused by unwanted frequencies becoming apparent, caused by the 'stepping' as the digital sample wave moves up and down the scale. These steps are more prominent with lower sample rates – it's the audio equivalent of a picture becoming more 'chunky' with lower pixel resolution.

Oversampling counters this side effect by smoothing out the waveform during playback. However, this process only takes effect on playback and doesn't affect the original sample data, so oversampling isn't much use if you want to use your samples with different music software.



▲ *AudioMaster* uses a four colour screen. You can change these colours as much as you like using a set of sliders.

Regis AudioMaster IV



▲ The *Audio Filter* is where you can control the *Range* of a low pass filter to improve your playback quality.

OK prompts

The OK prompts are there to make sure you don't accidentally destroy your carefully edited sample by selecting the wrong menu option.

Loop limit

Most Amiga music programs limit each sampled instrument to a maximum size of 128K. When you're creating samples for use in other

music software it's handy to have this limit imposed by *AudioMaster* so that you don't make your samples too big. However, *AudioMaster* can play samples with or without loops well above this 128K limit. It's up to you to choose whether you want this limit imposed or not.

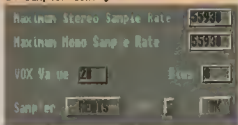
Finished tone

If you are working on large samples with a slow Amiga, it can be handy to have a beep to tell you when a process has finished. However, as *AudioMaster* is quite a speedy program and the beep can be very loud and irritating, thank fully it can be switched on or off.

Cut to buffer

Normally when this option is ticked anything you cut from the sample wave will be placed in the copy buffer, replacing anything that may have previously been there. There are times when you might want to cut or copy a section of the sample for later use and then need to trim another part of the wave. In this case, after

Sampler Configuration



▲ The CPU button in the sampler configuration screen is a short cut way of altering the maximum sampling frequency

copying the required section you would turn this option off to protect your previously copied data

Audio filter

This turns the Amiga's low pass filter on or off. This doesn't affect the sample data, only the playback quality. The low pass filter is so called because it passes (plays) only the low frequencies of the sound, or to be more exact, it takes off some of the high frequency content. This can compensate for the side effects of low sample rates although oversampling. The Auto setting will turn the filter on with sample rates below 10kHz. When oversampling is enabled, the filter is only activated on samples below 6kHz.

Co-ord display

The position of the range markers can be displayed in the top menu bar. This can be very useful for precise editing. The position can be displayed in units of time or sample bytes. To view the position in sample bytes select the Position option. The time figure is calculated depending on the currently selected sample rate, while the Position display is not affected by the sample rate.

Snapshot default

This selects the destination to which your snapshots will be saved. Refer to the November 1995 issue for more details.

Screen colours

AudioMaster uses a four colour screen. These colours can be altered to suit your own taste using a trio of sliders. Click OK to invoke your new colours or Cancel to revert to the originals.

Sampler config

AudioMaster is designed to work with all sampler cartridges that connect via the parallel port. If your sample cartridge doesn't seem to work, first try switching the sampler type button (which initially is set to Agilis). There's also a Bias setting which can be altered. Some samplers will generate sampled waves that are offset above or below the centre line. This can be compensated for by entering a number

between -64 and 64. Alternatively entering a number higher than 64 will cause the software to adjust the bias automatically by scanning the sampler cartridge while there is no input signal. The CPU button is a short cut method for altering the maximum sampling frequency. It has three positions: A, B and C. A is for 68000-based Amigas, B is for faster processors up to 25MHz 630s, while C is for superior processors. You can try setting the maximum sampling rates by hand by altering the values in the boxes at the top right of panel.

Finally there's the vox value, which is the volume level at which auto-start (Vox) sampling begins recording. This can be set to anything from 1 to 127. Higher numbers correspond to louder volume levels.

Type of waveform

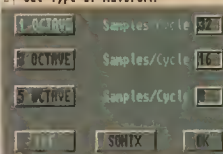
You can alter the type of sample wave to suit your music software. Most music software works fine with the default settings. However, you can convert your sample to a three or five octave instrument by clicking on the relevant button. AudioMaster then pastes together a string of differently pitched copies of the sample which when loaded into a music package, play back as the original instrument but over a larger range of octaves. There's also provision for creating samples compatible with Sonix.

Hi fi menu

There are three options available from the Hi Fi Menu. The Remember Loop and Hi Fi save options will not be of much use to many. They assume when you are creating multi-octave samples (as described in the Type of Waveform section) that you first re-pitch your sample wave to 8kHz. There's really no need to do this in the first place, but if you do, these two options can be selected before you 'resample' to 8kHz. The original sample data is then used as a source for the multi-octave instrument.

The Play Hi Fi option is used for replaying sounds at very high sample rates without distortion. It does this by freezing the rest of the Amiga's system and blanking the screen. ■
Tony Horgan

Set Type Of Waveform



▲ In AudioMaster you can easily convert your sample to a three or five octave instrument.

Tony's Top Tips

Now you know your way around all the buttons and menus, here's a go at some of these top tips for bringing your samples into the plush and sparkly world of professional audio.

● Revitalise drum loops

Is general use wear your drum loops to be both bright and punchy. In other words, they'll sound best if the bass and treble content are both present and not drowned by unwanted frequencies. The best way to achieve this effect is to use the filtering section. First of all, reduce the mid-range frequencies (this will remove lots of general noise). Set the Lower Frequency slider to around 184 and the Upper Frequency to around 1504, then click on Cut. Now move the Lower Frequency slider to 1 and the Upper slider to 184, then select Boost. Finally, select the treble content by moving the Lower slider to 1504 and the Upper slider to maximum, then click Boost once more. Repeat the process to emphasise the effect.

● Ultra smooth fades

When it comes to creating long fade-outs with simple sounds such as bass notes or TH908 bass drums, the obvious method is to use a volume fade option from within your sampler. However, once the volume of the sample gets beyond a certain point, you'll notice that unwanted noise becomes very apparent. This is because the 'stepping' of the sample wave is making more of a noise than the original sound. The best way around this is to loop a small section of the sound and fade the volume from within your music software using volume commands during playback. This will give you a far cleaner fade.

● Strip the kick drum

Often when you are sampling drum loops you'll have a sampling bass drum in the background. This can be a problem if you want to include the rhythm in your own song but drop the bass drum in and out when appropriate. Once again the filtering controls come to the rescue. To strip out the kick drum, cut all the frequencies between 1 and 400Hz using the Digital Filter option. It may be necessary to repeat the frequency cut two or three times to completely eradicate it. You can then add your own bass drum or another track. If you are short on sample channels in your song, you could keep one version of the loop with the bass drum, and use without, substituting one for the other at various parts of the song.

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Frequently asked questions

So you've got (or are getting) an Amiga ... now what can you buy to make the most of it?

■ Q. I have a standard A1200. What is the first thing I should get for it?

■ A. Get some recent games for a start and enjoy yourself! Then sort yourself out with a good joystick (or joystick if you are an old duffer like me), and a good loud set of speakers! Then get hold of the latest Amiga demo programs and realise what an excellent machine you have just bought.

■ Q. Where can I get demo programs and this public domain stuff I keep hearing about?

■ A. The simplest way is to post off a cheque to the many PD libraries which advertise in CU Amiga every month.

■ Q. What hardware should I buy? I mostly play games.

■ A. You should think about stocking up the trapdoor expansion slot. Adding extra memory here will speed up the Amiga, because of the internal architecture. A memory board with a 4Mb SIMM is a great buy, but it will cost about £180 upwards. A hard drive will be useful as more games are becoming hard drive installable these days.

■ Q. Should I get an accelerator card?

■ A. Accelerator cards speed up the Amiga because they contain a new faster processor on-board, typically a 68030 or 68040. They are more expensive than pure memory cards and they require additional memory to work effectively. Pricing is very competitive at the moment and as you

would expect, prices depend on performance. Equipped with a healthy 4Mb of RAM, a double-speed (28MHz) 68020 card costs about £260, a 50MHz 68030 costs about £350. If you only play games, an accelerator card is a lot of money. Not all games will benefit, but recently this has changed as titles such as *Alien Breed 3D* and *Extreme Racing* starting to make the most of extra hardware.

■ Q. I prefer using Workbench and serious software to playing games. What should I get?

■ A. Both extra trapdoor memory and a hard drive will make your life easier, the hard drive is probably more important, but getting more memory should be a number two priority. The A1200 was designed for 2.5" IDE hard drives but many dealers sell 3.5" IDE drives which can be squeezed inside the case. It's also possible to add SCSI drives externally, but this is more expensive.

■ Q. Is a monitor a good idea?

■ A. Definitely. Even a relatively cheap monitor will give you a better picture than a television (although a Scart connection is pretty close) and the official Amiga monitor will also allow you to use the special A1200/A4000 AGA screen modes. These screen modes are twice the size of the standard modes, and very useful when using 'serious' software.

■ Q. Do I need a CD-ROM drive?

■ A. Yes, if you want to be able to use CD-ROM discs. The

advantage of CD-ROM is that it can hold more data than 600 floppy disks, and it works reasonably quickly. There are many Public Domain software collections sold on CD-ROM and if you are a big fan you should get a drive immediately. The easiest way is to buy a SCSI interface such as the Squirrel and an external SCSI CD-ROM drive. Together these will cost £180 to £250 depending on the speed of the drive. Most games for the CD32 will also work on an Amiga fitted with a CD-ROM drive. An official Amiga CD-ROM drive should be available before the end of 1995.

■ Q. What other fun stuff is there?

■ A. Lots. If you have a video recorder or camcorder, get *VIDI*, *VideoMaster* or *ProGrab*. These are externally connected boxes (costing from about £50 upwards) which take incoming video signals and 'digitise' them to produce images which you can manipulate with your Amiga. If you don't have a camera you can use a scanner (about £90 for black and white, £160 for colour) which you drag over a photograph to get the same effect. A penlock will allow you to overlay Amiga graphics onto video (perfect for subtitled home videos) and a multimedia program such as *Scale* will allow you to create stunning presentations.

■ Q. What about a modem? Do I need one?

■ A. How could I target! A modem will allow any Amiga to connect to local Bulletin Boards (for electronic mail and public domain software) or even the Internet. A 14k4 modem costs about £130 and all the software you need is freely available.

■ Q. What software should I get?

■ A. A good word processor like *Final Writer* or *WordWorth* will

be very useful, especially if you have a hard drive and extra memory. Both are very smart, and generally useful. The Amiga has good graphics like *Deluxe Paint* or *Personal Paint* you will be able to create images and animations. These can then be recorded to video tape for example.

■ Q. How can I produce realistic 3D pictures or animations?

■ A. A program such as *Imagine*, *LightWave*, *Cinema 4D* or *Real 3D* will allow you to draw out a wireframe model and then create an image as though the model really existed. You can position lights and cameras, control the texture and material of the objects and produce animations. Unfortunately the process is time consuming and a very fast Amiga (with a maths co-processor), lots of memory and a hard drive are all but essential.

■ Q. I'm into making music. How can I do this on the Amiga?

■ A. Get *OctaMed* or another 'sound tracker' program from a public domain library (like *OctaMed* is also available commercially, though). This will allow you to easily compose music using the Amiga's built in sound sampling capabilities. Using MIDI interface and some sequencing software (such as *MusicX* or *OctaMed*) you can control external MIDI equipment and, talent permitting, create professional level music.

■ Q. Can my Amiga emulate other platforms, if I feel like a change?

■ A. Oh yes - it can act as an Apple Mac, a PC, a Spectrum, an Amstrad CPC - but why bother? It's best at being an Amiga, and Amigas are best. **■**
John Kennedy

Masterclass

Unknown to you, your hard drive may be filled with unnecessary duplicate files.

ARexx to the rescue!

Multiple copies of files needlessly take up valuable hard drive space. A simple solution would be to delete them. However, it's not as easy as it sounds as it is tricky to find these duplicates. Fellow FidoNet user Stephen Hems came up with the suggestion for this month's masterclass when he found that after prolonged downloading sessions he ended up with two or more copies of the same files on his hard disk. He wanted a program that would automatically find them all for him so he could get rid of them. Not one to disappoint readers I settled down to the job.

When writing a file handling program like this, *ARexx* is the perfect language. Not only does it support all the necessary commands, but it's included as part of the Workbench, so it may not be the fastest, but in a situation like this even an Assembler program wouldn't run much faster and certainly the effort involved in writing an Assembler version would be hard to justify.

Make a list

To find duplicate files on a disk the first thing to do is make a list of all the files. A single list held in memory is much quicker to process than having to constantly go back to the disk and re-read them.

For our example, I will take it that any two files sharing the same name and same file size are very probably the same. Although it is conceivable that this is not always the case, it will certainly do for the moment. Before any deletion takes place (which is not something this program attempts) it would be wise to check the files manual - or at least write another program to check them.

By far the easiest way to generate a list of files is to use the AmigaDOS LIST command: after all, that's what it is for. LIST is very powerful, especially when used with the LFORMAT option. LFORMAT allows only certain attributes to be displayed: in this case we need the filename, the file size and the filepath (where it is located on the disk), and so the LFORMAT string would look like this:

Figure 1

```
%n - file attributes
%n - size of file in disk blocks
%o - comments included in file
%b - the date the file was created
%k - the key block where the file starts
%l - the length of the file in bytes
%n - the filename
%p - the filepath
%t - the time the file was created
```

Figure 2

```
address command /* Use AmigaDOS */
'list lformat "%n %l %p" all files > t:temp1ist'
```

Figure 3

```
do while -eof(infile1)
  date1:=rsedin(infile1)
  persv var date1 name1 " " size1 " " path1
  call open(infile2,"t:temp1ist","r")
do while -eof(infile2)
  date2:=rsedin(infile2)
  persv var date2 name2 " " size2 " " path2
  if ((name1=name2 & size1=size2) & (path1=~/path2)) then do
    call writeln(outfile,name1| " |" path1)
  end
end
call
close(infile2)
end
```



A Time for the reader's workbench comes: this Workbench picture is courtesy of Steve Rogers.

ARexx program, using the LIST command to create our reference table of filenames. To instantly create the file, the redirection feature of AmigaDOS is used. By using ">" symbol, what would normally be displayed on screen is sent to a file. So when our program looks like Figure 2 you can tell that it is making a list and sending it to a file called 'temp1ist' in the t: directory, which is usually in RAM. The first line is necessary to inform *ARexx* that any odd looking commands it comes across are to be treated as AmigaDOS commands. This is why the AmigaDOS LIST command can be easily included in the *ARexx* program.

I've been duped

The next stage is the time consuming one: we have to go through the list, file by file, and check to see if there are any more occurrences. If there are the details are copied into another file for later processing.

This program is pretty dumb, and simply takes the first file and compares it (both the name and size) to all the others in the list. If it occurs the details are stored. Then the second file name is compared, then the third and so on. You can see that for ten files one hundred checks are made. For one hundred files, one thousand checks are made. This is an inefficient way of processing the files, but it works. It's a good programming exercise to find a faster way.

The (slow) system works by first of all preparing an output file to store the duplicates. The file is opened in t: and called 'report', by

Book Work

More details of AmigaDOS commands can be found in the Bruce Smith Books (tel: 01923 894 355) series 'Mastering AmigaDOS'. For more *ARexx* examples, the Abacus book 'Using *ARexx* on the Amiga' is a good choice.

this line of *ARexx* code

```
call open(outfile,'t:report','w')
```

It's not very exciting, and of course, there should really be code to check that the file has been opened successfully. I'll leave that for you to put in place.

Now we need to open the list file and go through it file by file. I'm actually going to open it twice as though it were two separate files by using two file pointers. Each file pointer keeps track of a different location in the file and so each works independently of the other.

Check out figure 3 as an example. It's a chunk of *ARexx*. It looks frightening, but we'll go through it together so don't panic.

The first line makes sure the file is used right until the very end when the EOF or End Of File condition becomes true. The next line reads in the first filename size and path information.

The third line is one example of why *ARexx* is terrific at this sort of thing: the *Parse* command easily splits the line of text we just read and splits it into variables, ready for checking. The line contains the name, size and path in that order and separated with spaces, and *Parse* puts the name into the variable "name1", the size into "size1" and the path into "path1" (if there is one). With the details stored in the program then re-opens the file and looks through it. If the names and sizes match the details are written to another file. We need to check the path here too, or each file will be checked against itself and included as a duplicate.

Sort it out

With the new list created in memory, it's time to do a little processing. This is required to remove any double-occurrences which may have sneaked in, but also make the report easier to read.

As you can see from the final listing, the first step is to sort the list into order and get identical filenames all bunched together. The *AmigaDOS* *Sort* command (I bet you didn't even know there was one) will do this in seconds for us, and create a new file called 'report2'.

We can then get to the display process. Although the sorted file is in good shape, it will contain multiple references to the same file. The display routine looks through the new report file and tries to make sure that only one reference to each file is displayed. The display program also adds a dividing line to make sure that different file duplicates are spread out. All that remains to be done is the removal of the temporary files we created whilst making the report.

Future moves

This program is very useful, but there are some problems with it. Firstly, it is very slow when a large number of files are involved. If you are searching your entire 1Gb hard disk, it might be wise to let it run overnight. You could speed up the process by evolving the *AmigaDOS* file searching algorithm used: sorting the file names into alphabetical order would speed it up immensely.

The second problem is that no checks are made for low memory conditions. If a large

Searching For Clones Made Easy

```
/*
  Search for duplicate file names 1995 John Kennedy
*/
address command /* Use AmigaDOS */
/* First, generate list of files & sizes */
say "Making list of all files in current directory..."
list lformat "in ti wp" all files > t:temptlist'

/* Now, go through searching for duplicates */
say "Searching for duplicates..."
infile1='infile1'
infile2='infile2'
outfile='outfile'
call open(outfile,'t:report','w')
call open(infile1,'t:temptlist','r')
do while -eof(infile1)
  datal=readln(infile1) parse var datal name1 " " size1 " " path1
  call open(infile2,'t:temptlist','r')
  do while -eof(infile2)
    data2=readln(infile2) parse var data2 name2 " " size2 " " path2
    if (name1=name2 & size1=size2 & (path1=|path2)) then do
      call writeln(outfile,name1||" "||size1||" "||path1)
    end
  end
end
thill close(infile1)
end
call close(infile1)
call close(outfile)

/* Now process the report file a little further */
/* Let's start by sorting it... */
say "Sorting report file..."
sort t:report t:report2'
/* Now display report, removing multiple files */
say say "Duplicate File Search Report"
say "-----"
say
call open(infile1,'t:report2','r')
name2=""
path2=""

do while -eof(infile1)
  datal=readln(infile1)
  parse var datal
  name1 " " path1
  if (name1=name2) then say
  if (name1=name2 | path1=|path2) then say path1||name1
  name2=name1
  path2=|path1
end
call close(infile1)
/* All done: */
'delete "t:report" quiet'
'delete "t:report2" quiet'
'delete "t:temptlist" quiet'
say "All finished!"
```

number of files are involved it is possible that there won't be space in the *t:* to store them all. Changing *t:* to access a hard drive will work, but it will be slow. Also, the *AmigaDOS* *Sort* command is known to misbehave if memory is low.

If you get odd crashes, increase the Stack size of the Shell first. Enter Stack to see the current size and then enter a larger number, like 8000, for example.

The 'Dup Hunter' is a good basis for your own expansion. For example, you might want

all the duplicated files to be copied or moved to a new directory where you can browse through them and decide which ones need to be removed.

You might want the process to be automatic (remember to compare the files closely before deleting any) and you could even set it up to happen every night by using a program such as 'cron'. It's also a great introduction to *ARexx*, a language which you will find both powerful and easy to use. ■

John Kennedy

Logos, meanings and mysteries:



CD32 queries, ParNet and various other CD-ROM-related problems.



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Everything you need to know about the internet



Not everything fits into a pigeonhole, but everything you like fits in here



Amiga on the blink? Software or hardware getting you down? Well, write your problem down, providing as much information as you can about what exactly is going wrong, what type of machine and how much memory you have and send it in to the usual address. We'll sort it.



Young fresh faced Tony is here, as ever, to provide solutions in your quest for help.



And by his side the even more fresh faced Mat eagerly awaits all those pleas for assistance.

Duff hard drive

I am a not very happy owner of an A1200. It all started when I asked my dad for a hard drive. The first

drive I got didn't work at all. I then got another one which I thought worked. Wrong. It started malfunctioning as I installed *Image FX* onto it. The installer said something about the 'ffparse lib' on the startup-sequence and I pressed 'proceed'. For some reason every time I boot up now, I get the message 'Error. Unable to open your ffparse lib V39'.

However, I know that I have this file. I've even tried renaming it 'ffparse lib V39' but that made no difference. Now even some things like *OctaMED 5.04* don't work. They call up the same error message and some stuff about the preferences drawer. Every time I boot up I get the message 'Work has error' and then a number. Also when I try and save something to Work I get the message, 'Work not validated' when it always had before. Please help or my dad will send back the hard drive.

Sean Talbot,
Great Bookham, Surrey.

The 'v39' that various things are quoting to you is the version number of the library and has nothing to do with the filename. Do NOT rename the libraries. It should be called 'ffparse.library' (not 'lib') and you can find it on your original Workbench floppy disk in the 'libs' directory. Just copy it onto your hard drive in the same place where you were performing the nasty rename operations. That will solve all the problems with programs asking for the library.

Finally the reason you are getting errors about your drive being

'invalid' is because it is corrupted. Nothing to do with the physical hard drive at all which is most probably operating perfectly. Rescuing without waiting for something to finish saving is a common cause of hard drive corruption. A PD program such as *DiskSav* will remedy the situation and is available from any PD house worth its salt. Check the adverts in the magazine for some good PD houses. Finally, I recommend you purchase a beginners book on the Amiga. Bruce Smith Books publish an entire range and there are several you should consider. Call them on 0923-894355 for information on their range.

SCSI power

I am considering buying an Awa ACD-300 CD-ROM and Squirrel interface to use on my dad's A1200. I have an accelerated A500 with Supra 500K SCSI interface and a 1/2 Gig SCSI-2 drive whacked on the side. As the Supra has a D-socket on the back for SCSI pass-through, will I be able to link the CD-ROM drive to the back of my Supra? If so, what cable will I need? Also, would I be able to link my hard drive, minus the SCSI controller of course to the back of the CD-ROM drive? Do the necessary leads also provide power?

Garth Corroll,
whereabouts unknown.

Indeed you can connect any SCSI device to the SCSI 25-pin D connector on the back of your Supra interface. What lead you need depends on the type of socket on the back of your CD drive. The 25-pin D type or the much larger 50 pin variety. Either way leads are available from many computer retailers and are pretty standard affairs.

The next issue is power and that's

not so simple. SCSI leads do not provide power themselves and so you need to power the drives separately. The CD-ROM is likely to have its own power supply (either a plug pack or a built in transformer) but if the hard drive does not possess its own supply then it will need a separate one. Without more details on the hard drive, we can't tell how it was powered when you connected it to the Supra interface.

Net linkup

I am planning to buy an Amiga A1200 later in the year and I would like to connect it up with the Internet but I am not sure how to go about this and what I will need e.g. what type of modem, what communications software, if I will need a hard drive etc. If you can do the above for me, I would be most grateful.

Michael Perries,
Inverness-Shire.

You're about to open a veritable can of worms there. The easiest way to connect is still by subscribing to *Demon Internet Services* for a full Internet account.

Getting your hands on some software from an archive created by some other Amiga users on *Demon* is the next step. The archive you need is 'AmiTCP-DIS95.lib' and you can find it on a BBS such as *Darkside BBS* on 0181 771 9100. To do that you'll need a modem and a hard drive (it's about 1Mb in size). Buy a respectable brand of modem such as Supra or US Robotics and you can't go too far wrong. A fast one will save you money in the long run to a 28800 baud one is recommended. A hard drive is essential for the Internet since the software is very complex and wouldn't even fit on a floppy disk or two.

Lastly, you need contact back issues

(tel: 01858 468 888) department and order the previous issues containing our *Wired World tutorial* (starting from August 95) which cover from first steps onto the Internet to setting up complex Internet software.

CU's CD hassle

I have a CD32 connected via SerNet to my A1200. Normally I access CDs via DOpus so I can copy off the

bits I want but your Cover CD doesn't seem to work this way. File Not Found and DOS pocket error message happen when I try to copy some files. Is this disk faulty or is this my set-up? Most of my other PD CDs work fine.

Anthony Brice,
Piza Harrow

The problem is complex but revolves around the elderly nature of Sernet and some bugs in the Commodore CD File system in the CD32. (Thankfully, these bugs are fixed with Amiga Technologies newly released SetPatch on this month's cover disk) Sernet and the CD32 generally function satisfactorily but when used with Opus 4, problems can and do occur.

One solution is to use a terminal package such as NComm on the CD32 and on the 1200. Files can be sent via Z-Modem transfer and this can work more quickly than Sernet is capable of transferring anyway. Also accessing the CD directly from Workbench is perfectly feasible. If, after inserting the CoverCD, you enter the following line:
Assign AmineC: NET:CD0
You should find that you can click on the NET: Icon and then the CD0: drive within to bring up the CoverCD. With the AmineC assign made, you can now activate the 'Find' utility over SerNet with no problems.

All cracked up

1. Why is there a loud crackling sound coming from one of my speakers?
2. Why when I use Technosound Turbo III does the scanline not show on the screen?
3. Why does my Workbench screen flash sometimes between colour and black and white until I click on the screen or in more persistent cases keep opening and closing some windows?

4. Why is CD-ROM called this? I thought ROM meant Read Only Memory, but it is not memory, and it is only data being read, so should it be called

CD-ROD (Read Only Data)?
5. Why wasn't your December cover CD CD32 friendly?

1. Why did you have the CD and floppies mounted on different magazines? Surely if you have a CD-ROM drive you'll have a floppy drive too, and if you haven't got a CD-ROM drive you'll have one soon

Michael Berkhoed
Brentwood, Essex.

1. Either your speaker is knackered, your amp has had it, your cables are rubbish or your connections are loose.
2. If your Technosound software isn't working, use AudioMaster IV instead, it's far superior in most aspects.
3. Mmm. It sounds like it's a loose RGB cable and nothing to do with your activities on the Workbench other than possibly vibrating the connection. Perhaps this is tied in with your cracking sound? A thorough investigation of the wiring seems needed.

4. Yes, very clever.
5. Since the software archives are of little use to CD32s (you have nowhere to unarchive them to), there was little point in the loads of extra work involved in making the cover CD a bootable CD. You still can use it via the SerNet system so you can use the archives on an Amiga computer as it was designed for.

6. There was no point in putting floppy disks on the CD edition of the magazine, as all the software from the floppy was on the CD.

TV interference

I am lucky enough to own one of the best computers going. Though I have to use PCs at work, it is

always nice to get back to my trusty A1200. I do, however, have a slight problem. When I use my A1200 it seems to create interference on the Television downstairs. This may not happen all the time but it is annoying when I get moaned at and have to shut down. My set up is quite complicated as I use the computer for video and image processing.

The A1200 has a GVP 1230 40MHz 4MB unit in the hatch and an 85MB hard drive internally. A Philips 8833 monitor is connected through a GVP G Lock. The system also has two external floppies and a Vidi-12 digitiser all powered with the standard power supply. I use the monitor for two videos through a SCART switch into the composite input. There is no interference when

using the monitor with either of the videos. Is it possible that the Commodore power supply is being heavily loaded and causing interference through the mains? I have no other signs of the power supply being overloaded. Perhaps the empty UHF output from the A1200 is causing interference or some sort of feedback through the SCART input to the video recorder? I would be most grateful for any help that you can offer.

Name and address not supplied.

After pondering your set-up, we decided there's nothing in particular that appears to be causing the trouble. There are a few issues to consider, however and some to dismiss.

Firstly you can discount the power supply causing interference on the mains. Such a small power supply would fail altogether before it'll have any of those problems. Also the empty UHF socket will not transmit any interference.

That leaves two major suspect areas. One being RF leaking from your A1200 or video connection problems. The former is likely in your system since the Trapdoor isn't shielded and any accelerator will often be a prime offender in the unwanted RF stakes. Above the trapdoor is shielded by the keyboard (partially) but below is not.

The solution would be to tape some aluminium foil to the underside of the trapdoor hatch lid (the detachable bit) and run a small insulated wire (exposed at each end) from that to the RF shield inside the unit. Not the idea that is in contact with the accelerator! This effectively creates an RF shield for the Trapdoor and has been known in help in the past.

As for the video side; the easiest way to diagnose the problem is to remove segments of the chain one by one until the problem vanishes. The most recently removed component, before the problem vanishes, is the offender. Video switching boxes are prime offenders and often completely unshielded.

Flashing lights

I have an A1200 fitted with a Conner 425MB hard drive, Amitek disk drive, 1084S monitor and a

Citizen Swift 90 printer. My hard drive has started having problems when booting up. It makes the usual noises searching for files but takes ages to load them. When the Workbench screen

Help Us Out

If you send us some technical questions, please take care to make your questions clear and concise, using all the correct terminology. If error messages are occurring, write them down exactly as they appear and include them with your questions. Send your questions to Q+A, CU Amiga Magazine, 30-32 Farringdon Lane, London EC1R 3AU. We regret we cannot answer technical queries over the telephone.

eventually loads and the hard drive goes quiet, the hard drive light stays on for a while as if it is still loading something. When it's finally finished a requester pops up and says Error Validation Work Block 253123 Bad Header Type. When I cancel the requester the drive works as normal as I can load anything from my Workbench. Work: or my games partition. So I brought up the icon information for the Work partition and it said validating instead of read/write which the rest of the partitions say.

Before this problem started I was installing Adorae from your great cover disk and also updating the old Drawers in the Work partition to Mega Workbench drawers and maybe deleted something I shouldn't have.

Please help before my hard drive ties itself up in knots with all those searching noises while loading. By the way great mag and cover disk. Keep it up.
Auchie Paton, Banffshire.

Your work: partition has become invalidated. Your Amiga must have been interrupted whilst writing a file to this partition (perhaps due to a system crash or a reset), and so was unable to finish the job by updating the disk structure once it had written the file. Your best bet is to use a tool such as HDToolbox to correct this error. In future be careful not to interrupt the Amiga when it is accessing hard or floppy disks.

NO SAES PLEASE

We regret that we cannot respond to readers' queries by post or over the phone. Please do not include stamped addressed envelopes with your letters, as we simply don't have time to answer the thousands we receive. Responses are only possible through the pages of the magazine.

Back chat

There's a lot going on this month: Amiga Technologies give an official reply to the Magic Pack Scala question and the upgrade debate still rages on and on. Want to have a say? You know where to come: CU Amiga Magazine, Priory Court, 30-32 Ferringdon Lane EC1R 3AU.

The great Scala and the new A1200HD mix-up

I have a complaint regarding the new Amiga 1200HD that has just been released by Amiga Technologies. I purchased one from Silica in October. I bought it for the Scala MM300 titling package that, along with all the other software, was installed on the hard drive. Having used Scala HT100 for along time on my old and trusted Amiga 500 this seemed the perfect opportunity to invest in the long awaited A1200. I unpacked the computer and sat it up following the manual's instructions and proceeded to run the Scala software. I also read the information about this system and was surprised to learn that before you run Scala you have to invest in an upgrade of RAM, at least 2Mb before the software will run. This being the responsibility of the new owner is: myself. Now I do not mind paying £499 for a computer but I also do not believe in getting ripped off by computer companies.

I checked the box and packaging to see if there was any reference that an upgrade was needed but there is not. I thought: now we have a case of misrepresentation. When I telephoned Silica and told them of the problem they told me I was the first person to bring this problem to their attention. They offered a refund but this is not what I wanted. I just want a system that runs without the need for paying out more money to make it work.

Terry L. Sayers
Middlesax

This is a confusing but real situation. To find out what is being done we spoke to Amiga Technologies about the matter and Jonathan Anderson, their Joint General Manager, sent us an immediate reply for publication: "With reference to our telephone conversation today, we would like to inform you and your readers of the situation regarding Scala MM 300. All Amigas sold in the UK as from Monday 26 November 1995, will have a sticker on the box stating that Scala MM300 requires 2Mb of extra memory - which is not included. We hope that this now clears the matter up and that people will now be aware should they wish to use Scala MM300 on the A1200HDD from the Amiga Magic pack, that this requires extra memory, which will need to be purchased at their cost. On behalf of Amiga Technologies, we would like to wish you and your readers a prosperous 1996, and thank you for your support."

More game power

I've just bought *Alan Breed 3D* and I think it's the best game I've ever played. I contacted Team 17 to tell them as much and to ask them whether they will be producing a version for Amiga fitted with 24-bit graphics cards (ie Picasso II, Piccolo SD64, Spectrum EGS, Cybervision etc). However, Team 17's manager (Phil Quirks Webster) replied "We will have to see how well the game sells before investing time and money into this, but we do not rule out the possibility of this happening".

I feel though that thanks to CyberGraphX, there is now a real possibility of a standard 24-bit chunky display. So, if all the big box Amiga owners with graphics cards were to write to Team 17 we may be able to get a CyberGraphX version which would really put Doom and the PC to shame. I therefore urge every owner of a 24-bit graphic card to contact Team 17 and inform them that they will be interested in purchasing a special version if this proves successful then we may see more titles produced.

Owners of A1200s may feel that this excludes them, it doesn't. I use an Amiga A1200 fitted into a Micronics Z5 tower. This is a reasonably priced upgrade and there are versions of the tower for the A500 and A800. All versions allow you to fit Zorro II cards to your Amiga. And it won't cost a fortune. For example the Picasso II is now very reasonable.

If we are serious about the Amiga we have to face up to the fact that we need to upgrade our machines. This will enable the Amiga to keep its rightful place as the best home computer. Even if you haven't got a disc play card buy *Alan Breed 3D*. It's awesome. I urge everyone not to pirate the game, you are only ruining the chances of more games of this quality. We must support the Amiga if it is to survive. Have a look through that disk box, for every pirated bit of software and send some money to the publisher, even if it is only a £1. Ask, beg or plead with them to

Team Talk

Because we were so busy doing the mag this month we enlisted the help of our Amigas to generate some random team talk. PS: It's all fiction, any similarity to real life is coincidental.

Alan Dykes



When we tried out our random text generator on the office A4000, it had this to say about our Alan: "Referring to snail coffee on

game previews, Alan Dykes ticks off Mr Blobby for not providing free products to the press and then in a surprise move got very drunk at the release of a stolen review copy of *ZeeWolf 2*."

Lisa Collins



Luckily our newly accelerated A500 was in a better mood and so was a tad kinder to the lovely Lisa: "Researching Backchat, Lisa

Collins complimented CU Amiga's Mr Donut mascot for having an excellent product range and took time out to stealthily whisk a review copy of *Worms* out of the office."

Tony Morgan



Tony's A1200 was being so full of himself: "Attempting to edit PD Utilities Tony Morgan telephoned Premier Mail Order for

some dress sense and unsurprisingly liberated a powerful A4000 Tower which he liberally coated with pot noodles." That sounds about right. Full marks to our Tech Ed's Amiga.

stay with the Amiga, prove to them that we've grown up. Matt Bettinson is right, upgrade to survive. An A1200 fitted with an accelerator is a serious bit of kit. The cost of accelerators has never been cheaper. We have only ourselves to blame if the Amiga dies.

Michael Simthson
Essex

You are star! Tell it like it is. In fact an add on disk which will enhance Breed 3D for machines like yours looks likely. More news next month.

Staggering dates

I buy all the following magazines: CU Amiga Magazine, Amiga Shopper, Amiga Format, Amiga Computing and Amiga User International. I shall shortly, however, stop buying them all because of the price increases and the fact that I am a pensioner. However, it would help persons like myself if the publishers could get together and stagger their publishing dates. I could then afford to buy one copy each week rather than three at once. A longer period between copies also means they are read more thoroughly.

I also deplore the trend to sell direct to the customer, particularly with extra items not normally supplied, ie disks. The newspapers put you where you are today and this is hardly the way to show your appreciation. If they all stopped stocking your mags would you make enough in direct sales to keep going? I doubt it. Having cancelled my orders I will now only buy a copy when I see one that really grabs my attention, and when I have the money. An annual subscription is a definite 'no go' area.

RK Caley
Woolacombe, N Devon

It's in all our interests not to clash release dates with competing magazines and we do what we can to avoid it. As for direct selling, by which we presume you mean our subscription offers, all magazines have subscription lists and reward their most loyal readers (their subscribers) with extra free gifts or price reductions. There's nothing underhand about that.

Cover disk tunes

I am a loyal reader of your magazine and thought I'd have a crack at getting on one of your cover disks. I have compiled 10 of my

best songs onto a disk. Would you accept this contribution to your superb magazine and any payment would be much appreciated. I would appreciate a reply to my letter and hope to go public via cover disks one day.

Jason White
Bassildon, Essex

We're glad to receive any tunes, pictures, or software of any kind for possible inclusion on future cover disks. Next time Jason, why not send in some tunes? It's hard to tell if they're any good when all we get is a letter.

A point well made

Your letter of the month (November CU Amiga) makes a good point. Upgrading makes a lot of sense. For those with an A500 who don't see the sense in it, picture this: your neighbour has a 386DX with 4Mb RAM which he bought six years ago. It's two or three years newer than your A500, which he multitasks in 1985. He's jealous and wants a PC that multitasks. Can he run Windows 95 on his PC? Of course he can. Will it run well? No it sets up almost all 4Mb and is incompatible with most of his current software. So he needs more RAM (I think 16 is recommended with 8 being the minimum requirement) and then he needs to replace most of his software and licenseware available for PCs so it's all so expensive.

Has he spent more than £400 (the cost of a new A1200)? You tell me. And guess what? His computer is still three generations old (486, Pentium, P6). Who do I feel more sorry for, the person who has to shell out £400 or his neighbour.

Andrew Hill
Cambridgeshire

I was that non upgrader

OK I was that A500 owner, entrenched and still digging my heels in when it came to upgrading. My A500 and A580 combo plus extra RAM were enough for me despite the increase of AGA only cover disks.

Like many fellow "on a shoestring budget" Amiga users my answer to the upgrade or die fraternity was sour grapes and a two fingered salute coupled with the question "how can I afford it?" That was before the current situation where there is lots of Amiga

THE FAR SIDE

By GARY LARSON



At the Crabbiness Research Institute

peripherals available secondhand at knock down prices. Would you believe that I got my hands on a three year old A1200 60Mb drive, 24 boxed games plus 200 floppies and joystick for £150. No neither could I. There is a God.

RC Pavy
Hants

Your CD doesn't work

I bought your December issue on the strength that I could use it with my CD32 but I couldn't get it to work at all. What is going on?

Guy Higson
Canterbury

The cover CD was designed for CD-ROM drives connected to Amiga computers. The reason being that the files on the CD were mainly of use for those machines. The Amnet CD does not have the host system that CD32 disks possess. However, you could access a CD-ROM via the CD32 via another Amiga with the use of a CD32 networking kit. This consists of a serial network cable and networking CD. It's available from Brian Foster computing for £34.99. You can reach them on 01392-499755.

Mat Bettinson



The man responsible for all this misery. His A3000 had this to say about him: "Proof reading graphics masterpiece, Mat Bettinson

gossiped with Clonto for a nice large bribe and proceeded to get drunk at the release of a crate of mythical CD32 worms." Upon reading this, Mat fell back on his usual catchphrases, "That's %&£@!"

Helen Danby



Helen's Mac wasn't capable of generating anything so our trusty 500 did the job instead. It said: "Ordering Anthony Collins to proof read

players guides, Helen Danby reprimanded HIG for not providing free products to the press and walked home with Wizard's mythical A1200 tower." Hummm yes. No comment.

Anthony Collins



As Anthony is another Mac owner we turned, once again, to the A500 which said: "Taking screen grabs for graphics masterpiece,

Anthony Collins telephoned Usage Computers for calling Underground PD too quietly groaners and took time out to dream of a stolen review copy of Super Tennis Champ."

John Kennedy



"What's all this about?" asked John when he discovered us crowded around our Amigas waiting to see what they would churn out

next. "Have you nothing better to do with your time?" he sighed. "Then you won't want to see what it said about you?" chorused the team. "Did Mat set this up? If so, no."

An Amiga Christmas!

You know those moments just after Christmas dinner, when everyone is either sound asleep or nattering away about socks and the Queen and who won what in the National Lottery and what they're going to do next year with the money they win in the National Lottery and the price of rail tickets and privatisation and how lovely Noel Edmonds is (let's not go too far - Ed). The kids won't shut up about Power Rangers and Pog and all you want to do is retire to Amiga peace, but no-one will let you ... something about being unsociable. Well, if you can't beat 'em join 'em. Get them to help you answer these questions and win a whole host of goodies to welcome in the new year: Mat Bettinson's jeans, a Sensible Software hand grenade, a stick of Themepark rock, a DOpus T-shirt, a whole bunch of books and an Aviator joystick.



Attention Bookworms

Win a box bursting selection of Bruce Smith's finest books. Every now and then Bruce Smith sends us a new book for review. And we keep them all. But a forced clearout of the office and a collapsed bookshelf means that we simply don't know what to do with all of our spare books so you, our friends and brothers in arms, can win six of the blighters along with this lovely Amiga beginners pack, which includes disks. The pack includes programming and Workbench guides plus this nifty Frontier guide signed by

the author - Tony Dillon. All you have to do is win with a chance of winning is tell us which satellite TV network shares the same initials as Bruce Smith Books?

Oh yes, if Bruce Smith Books are reading this please don't ask for your million books back because we're giving them to readers.



A State of Undress

Mat Bettinson has been everywhere: Thailand, Russia, East Finchley and so have his jeans. He's even had the front to wear them to three Amiga Technologies press conferences. Unfortunately they are now in a state of severe disrepair so in possibly the most bizarre and twisted competition ever he's offering his holy jeans to you. To win the most Amiga exposed

pair of jeans ever (recently cleaned but hardly wearable) just jot down the answer to the following Christmas question: In which Dickens novel did a character buy the last turkey in the shop?

- a) A Christmas Carol
- b) Pickwick Papers
- c) Oliver Twist

Hand Grenade

Every year unusual objects arrive in our post bags, promoting games, products and, in one strange and useless case a brand of spaghetti. But we're incorruptible here so, although we appreciate everything, a promo doesn't affect a product's performance. A lot of promotions are quite frankly poor, but some are very thematic, like these two little promo prizes we're offering to you.

Lot number 1 is a fake hand grenade sent to us by Sensible Software to celebrate the launch of *Cannon Fodder 2*. And what a jolly item it is. It's a bit worse for wear at the moment but if you want a genuine place of games memorabilia then it's yours ...

If you can answer the following question and we draw your name out of a hat: What was the name of the

character played by Marlon Brando in *Apocalypse Now*?

Lot number 2 is a stick of rock. Tasty? We wouldn't know. But what's really special about this rock and the reason we don't know what it tastes like is that it's Theme Park rock from Bullfrog. Yes, instead of having Blechpool or Torquay inscribed in tooth murdering sugar in its corn it reads Theme Park. Different eh? Anyway to stand a chance of winning this piece of unique blue confectionery you should get your aunt to answer the following question: George Formby, music hall comedian and the source of seaside pavilions until his untimely demise was famous for playing which of the following instruments:

- a) a set of bongos
- b) a harpsichord
- c) a ukulele

CANNON
FODDER
2

Aviator Joystick

Flight Sim fans among you may be interested in a bit of realism. And boy do we have it. It's called the Quichehot Aviator and was donated to our cause a long time ago by those fine joystick specialists Quichehot along with a previous competition prize. But we don't have enough space on our desks for lunch, never mind a Quichehot Aviator so we thought that one of you might like it as a late, fully boxed Christmas present. It's big, heavy and plastic, but it works. And it's almost free. To be in with a chance of winning this superb aviation controller all you have to do is

answer the following question. State which one of the following is a famous flight tester:

- a) Chuck Rock
- b) Chuck Norris
- c) Chuck Yeager



Dopus T-shirt

Directory Opus 5 is the business. If you want a proper file organising system for your Amiga then look no further; it will almost replace Wordbench - if you have a hard drive. It's produced by a couple of hard-nosed, ruthless Aussies working under the banner of GP Software. At the Cologne show our editor was assaulted by one of them, who thought that he was editor of another, patently inferior, Amiga magazine. Greg Perry shouted and cajoled Alan until the realisation came upon him that he had the wrong man. By way of apology Greg gave Alan five t-shirts to do what he deemed fit with, and so you have the opportunity to win one for the price of a stamp. All you have to do to have a chance of winning one of five extra-large Dopus



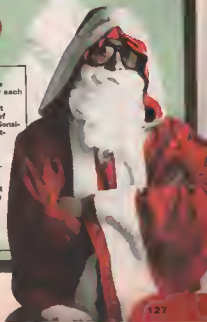
five t-shirts to ask your Aussie cousin to answer this question: Which of the following Australian names describes a fish:

- a) John Potter
- b) Barramundi
- c) Dingofish

OPUS5

Rules

1. No more than one entry per person for each competition.
2. Competition is not open to employees of Bruce Smith Books, Sensible Software, GP Software, Group Images.
3. All answers on a postcard to be received by 15/1/96.
4. The editor's decision is final.
5. Entries to be sent to 'Crazy Christmas Camp', CU Amiga Magazine, Priory Court, 30-32 Farrington Lane, London EC1R 3AU.



Review

It's that time of the year when we all start blubbing into our drinks and claiming complete strangers are our "besht metes" in a heze of festive jubilation. But before we put on e new berrel, let's consider 1995, its low and high points and attitudes towards the Amiga.

Alan Dykes



Apparently we're all wrong and the Amiga is really useless because *Raiden* isn't going to be released

on it. Console purchasers were right after all. The parts of the brain which control lightning fast reactions in the fingers and thumbs enable people to justify spending an average of £60 on games as clearly superior to the intelligence that enables you, the Amiga user, to play strategy as well as button bashing games for twenty quid less and if you really want to, program them as well.

Spotty oils

An Amiga games player called Andy Davidson did just this and produced *Worms*, a superb strategy game. But a magazine which gave a Neo Geo game called *King Of Fighters '95* 93%, despite the fact that it'll probably cost a fortune and despite the fact that the Neo Geo is about as mass market as whole meat, gave *Worms* 84%. This magazine is called CVG.

I'm not criticising the score here, though. The review was of the Playstation version of *Worms*, it appeared in the December issue of CVG and was written by Matt Broughton, deputy editor of EMAP's Playstation Plus magazine and regular CU contributor. He said "I'm in love with this game and suggest that you stop reading this now and go and buy the

game." What annoys me is the second comment, made by CVG editor Paul Davies.

Paul is a reviewer whose opinion I greatly respect and he doesn't like the game at all. This is fair enough, everyone is entitled to their own opinion. But according to him "The strange brand of humour which seems to have evolved with the Amiga has done so out of desperation for real good games. In that market it will no doubt do very well, but I say discerning console owners should expect something a lot less hackneyed".

Discerning console owners my back side. You mean spotty little oiks who got/will get one for Christmas. If finger pointing for hackneyed game subjects is in order surely the best 'am up, beloved of 'discerning' console owners is the biggest target for endless rolling duplication.

That "strange brand of humour" we Amiga users have is born out of an ability to think about more than the fifteen button combination required to rip a creature's spine out of its body and spit into the cavity. And what lack of games? OK we're not exactly riding the crest of a wave of software releases but if you can still get good new ones

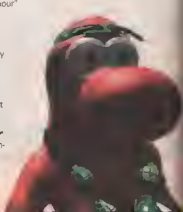
Playability power

The Amiga 1200 may not compete graphically with the

Playstation or Saturn and the software houses may be letting it down badly in favour of those new (and admittedly brilliant) toys. But it's still a superb fledgling development machine, without which we wouldn't have *Worms* or *Super Skidmarks* (which incidentally was highly praised in the same issue of CVG) or many other popular titles.

Paul Davies and his - normally excellent - multi-format console magazine should give the Amiga more consideration in the future. As the games world turns increasingly towards major multimedia events and big budget productions, the Amiga will hopefully still be there bringing us all back down to earth with simple interpretations of the game reviewer's favourite word: playability. It may be a bit hackneyed, but if you're going to spend hard earned cash on a game it's a useful concept.

The year that was



John Kennedy

What an astonishing year! It may have seemed that the Amiga was dead and everyone should have moved to a PC, but we all know that Amiga owners are made of sterner stuff than that! And we were richly rewarded for our patience, because 1995 was a stunningly good year. Software got better, hardware improved and all this when the Amiga wasn't even being manufactured. What other platform ever had the same kind of support?

Go faster stripes

Without a doubt, 1995 was the year in which CD-ROM really

happened. The CD32 clearly wasn't the hit everyone was hoping for and it took HiSoft and their excellent Squiari interface to do it by allowing A1200 owners to use standard SCSI drives.

For those lusting after high-tech bits and pieces things were going very well indeed. Not one but two high speed video cards appeared and even better, the first reviews of cards featuring the ultimate processor, the 68050.

This was the year that the Amiga went faster than ever before. Amiga software simply gets better and better. *ShapeShifter* brought high-quality

Apple Mac emulation at a shareware price and *Fears, Gloom and Alien Breed 3D* all proved that the Doom clone was possible.

Born again

As for the future, after the enlightening price of the new AT Amiges, things are starting to look a little brighter. The new owners have made interesting promises about PowerPC platforms - including PowerPC upgrades for existing machines and certainly an Amiga based on this technology would keep us in MIPs for the next few years. It's almost certain that a new 68030 or 68040 based

A1200 replacement will be released in 1996, which if done right, could single handedly rejuvenate the whole home computer market. Let's keep supporting the best computer around.



▲ *ShapeShifter* supports Mac emulation at a shareware price.

Mat Bettinson

In light of this past Year of Darkness, it's easy to forget what Amiga Technologies, shareware authors, hardware and software companies and users have managed to achieve throughout 1995.

Against the odds

Despite the rumours that the Amiga was dead 95 saw amazing software releases in both commercial areas (*Directory Opus 5* and *Photogenix*), and the Public Domain. Hardly the kind of thing that would have happened on any other platform presumed dead.

Hardware manufacturers also kept steadfastly developing excellent products for the A1200, like the Squiari and ever faster accelerators. Hell even the games scene was bolstered by a rush of

excellent *Doom* clones inspired by some foolish person saying they couldn't be done.

Out of all of this activity, my hat goes off to the shareware authors - keen Amiga enthusiasts that stuck with the Amiga during the hard times, realising what a brilliant system it was and continuing to create amazing software to rival commercial grade material on other platforms. I think that these guys helped keep the Amiga market stay viable long before the Escom 'Bersheim Boys' stepped in. Moving at far greater speeds than the old Commodore ever did, the newly formed Amiga

True grit

Another bonus point to 95 was the fact that Amiga Technologies got

A1200s into production quicker than the experts thought possible. Many criticisms have been levelled at AT but you've got to credit them with the fact that they got those machines into the stores well before Christmas. Hats off to Amiga Technologies.

Now they've announced the decision to move towards the cheap and powerful PowerPC range of processors. This is good news as all that wonderful PD and Commercial software should work under emulation. However, we need the Amiga scene to pull together and turn the new architecture into the ultimate computing platform.

The most valuable resource the Amiga has is the dedication of its users. That means you, dear

readers. Having had the pleasure of quaffing German ales with AT general manager Petro Tyschtschenko, I can tell you that he is well aware of this.

The Amiga is going to wonderful places. We have a while yet to wait for new Amiges but in the mean time, make the most out of the Amiga's strengths and for God's sake buy a modem. The Net awaits.



Tony Horgan

This has certainly been a year to separate the men from the boys, or if you prefer the true faithful from the bandwagon riders.

With memories of the sad demise of other computer platforms still fresh in the memory, some Amiga developers decided to cut their losses well before the losses were even made. However, those that stayed on have been rewarded by the custom of the still enthusiastic Amiga users, and as a side effect have become relatively large fish in the pond. This includes developers right across the board, from innovative game producers like Black Magic, to hardware devotees like Power Computing, serious software developers like Impulse and

all-rounders such as HiSoft. Most have had to tighten their financial belts somewhat to remain competitive, and we've seen a few commercial fatalities along the way, but the main players are still here and still giving us what we want, and most importantly you are still here too.

Hold our own

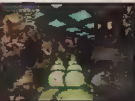
The future? Well the obvious thing to do is whinge about Escom and Amiga Technologies, just as it was the done thing to whinge about Commodore, detailing how they should do this and that differently. We all know what makes the Amiga special - an amazing operating system, a whole family of CPU-relieving

custom chips: its highly flexible audio visual capabilities and of course its unique users. Some seem to have doubts that a similar based up system will be viable in these days of replaceable plugin card technology but so long as the expandability is there, a decent base platform can only be a good thing.

We can ride again

Then there's that question of "How will the world be converted to the Amiga?" My answer is maybe it never will be, but that isn't a problem. Using magazine sales figures as a gauge for Amiga usage, it peaked around this time two years ago with an incredibly healthy market for

serious software, games and hardware. Was Amiga's household name back then? No, but that didn't stop it conquering the home and semi-pro computer market, so don't worry too much if your next door neighbour still hasn't heard of it.



▲ *Black Magic's Bersheim Boys* proved how capable the Amiga can be.

Get going in 1996!

February promises to be a chocker-block full month with top news, reviews and features for serious Amiga users! Check this lot out:

- Wordworth 5
- Apollo 4040
- Surf Squirrel



And for those addicted to games:

- Breathless the wondergame!
- Primal Rage the late game!
- Star Crusader the space game.

We find out what's in development and what's happening in the world of the Amiga.

Plus:

We might have features about networking and a new laptop Amiga but we wouldn't like to give too much away to the opposition just yet!

And:

Improve your Imagine skills with our exclusive Imagine 3.0 Tutorial and, on disk, enhance your paint and rendering programs with Texture Studio!



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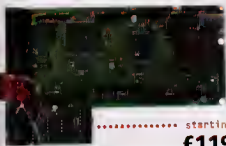
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